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OHIO AND THE MODEL LAW.

EIGHT SECTIONS OF THE MODEL LAW FOR MORBIDITY REPORTS ADOPTED IN OHIO AS REGULATIONS.

On October 21, 1914, the Ohio State Board of Health adopted as regulations sections 2, 3, 4, 5, 6, 8, 9, and 10 of the model law for morbidity reports.

To section 2 of the model law, which enumerates the notifiable diseases, three diseases were added to those in the occupational group. Those added were anilin poisoning, turpentine poisoning, and benzol (benzine) poisoning.

Section 3 of the model law, specifying the manner in which reports shall be sent to the health department, struck out the provision that the reports must be sent in writing. This allows physicians to report by telephone without making a subsequent written report.

Section 6 was amended by adding the words "parochial," so that the section as adopted in Ohio reads:

Teachers or other persons employed in or in charge of public, private, or parochial schools, including Sunday schools, shall report immediately to the local health officer each and every known or suspected case of a notifiable disease in persons attending or employed in their respective schools.

Section 8 of the model law was slightly amended and made to read as follows:

Whenever there occurs within the jurisdiction of a local health officer or board of health an epidemic of a notifiable disease, the local health officer or board of health shall, within 30 days after the epidemic shall have subsided, make a report to the State department of health of the number of cases occurring in the epidemic, the number of cases terminating fatally, the origin of the epidemic, and the means by which the disease was spread: *Provided*, That whenever the State department of health has taken charge of the control and suppression of the epidemic, the local health authority having jurisdiction need not make the report otherwise required.

THE FRIEDMANN TREATMENT FOR TUBERCULOSIS.

In March, 1913, a board of officers of the Public Health Service was appointed to investigate the Friedmann treatment for tuberculosis. This board consisted of Surg. John F. Anderson, Director of the Hygienic Laboratory, and Surg. A. M. Stimson. The board has submitted its report, which will make a publication of 64 octavo pages.

The general conclusions of the board will be of interest to the readers of the Public Health Reports, and are as follows:

General Conclusions.

The claims made by Dr. Friedmann for his method of treating tubercular infections are, in brief, that, by means of injections of a living acid-fast organism, harmless of itself, he is able to cure cases of tuberculosis, pulmonary or otherwise, which have not already advanced to that hopeless stage where death is imminent. From the manner of presenting these claims and from the fact that successes only and not failures are reported, the reader of these claims is bound to assume that such results are the rule; in other words, that a sovereign remedy for tuberculosis has at length been discovered, and incidentally that a method has been devised for the administration of living acid-fast organisms which avoids abscess formation, a complication which has hitherto limited their employment.

The results of the investigation here reported do not confirm the claims made by Dr. Friedmann. We find, in brief, that the preparation used by him is not strictly devoid of dangerous properties of itself, still less so when injected into tuberculous subjects; that the favorable influencing of tuberculous processes by his methods is certainly not the rule, and that if we are to ascribe to the Friedmann treatment the improvement noted in a few cases, we are equally bound to impute to it the serious retrogression observed in other cases; and finally that the phenomenon of abscess formation has not been avoided by Dr. Friedmann's methods.

We find that the organism used by Dr. Friedmann differs in important cultural characteristics from any heretofore recognized tubercle bacillus.

The subcutaneous and intramuscular inoculation of animals with the Friedmann organism caused the formation of abscess in over 25 per cent of the animals treated.

The treatment of animals with the Friedmann organism—rabbits and guinea pigs—either before or subsequent to infection with virulent tubercle bacilli, is followed, as a rule, by an increased susceptibility to the disease.

Inoculation of monkeys with the Friedmann culture did not show either curative or protective action in those animals against tuberculosis.

Summary.

The claim of Dr. F. F. Friedmann to have originated a specific cure for tuberculosis is not substantiated by our investigation.

The claim of Dr. F. F. Friedmann that the inoculation of persons and animals with his organism is without harmful possibilities is disproved.

BACTERIOLOGICAL STANDARD FOR DRINKING WATER.

THE STANDARD ADOPTED BY THE TREASURY DEPARTMENT FOR DRINKING WATER SUPPLIED TO THE PUBLIC BY COMMON CARRIERS IN INTERSTATE COMMERCE.

Pursuant to the recommendation of the Surgeon General, the Treasury Department on October 21, 1914, adopted a bacteriological standard for drinking water for the purpose of the administration of the Interstate Quarantine Regulations as they relate to the drinking water supplied to the public by common carriers in interstate commerce. The following is the letter of promulgation:

TREASURY DEPARTMENT,
Washington, October 21, 1914,

The SURGEON GENERAL, PUBLIC HEALTH SERVICE,

Washington, D. C.

SIR: You are informed that, in accordance with your recommendation of October 21, 1914, the department has adopted the bacteriological standard recommended by a commission appointed by the Secretary of the Treasury January 22, 1913, to recommend standards of purity for drinking water supplied to the public by common carriers in interstate commerce.

This standard is described in the first progress report of the commission, copy of which is attached hereto.

In the future common carriers will be required to furnish water for passengers in interstate traffic which will conform to this standard.

Respectfully,

W. G. McADOO, *Secretary.*

The standard is one recommended by a commission appointed for the purpose by the Secretary of the Treasury January 22, 1913. The commission was composed of the following members:

John F. Anderson.....	Director Hygienic Laboratory, chairman of the commission, Washington, D. C.
Edward Bartow.....	Director, Illinois Water Survey, Urbana, Ill.
Charles C. Bass.....	Director, Laboratory of Clinical Medicine, Tulane University, New Orleans, La.
S. J. Crumbine.....	Secretary State Board of Health, Topeka, Kans.
Edward C. Franklin.....	Professor of Chemistry, Leland Stanford Junior University, Stanford University, Cal.
Henry Hanson.....	Bacteriologist, State Board of Health, Jacksonville, Fla.
Charles Gilman Hyde.....	Professor of Sanitary Engineering, University of California, Berkeley, Cal.

Edwin O. Jordan-----	Professor of Bacteriology, University of Chicago, Chicago, Ill.
Allan J. McLaughlin-----	Surgeon, Public Health Service, Washington, D. C.
William H. Park-----	Director, Research Laboratories, Department of Health, New York City.
Milton J. Rosenau-----	Professor of Preventive Medicine and Hygiene, Harvard University, Boston, Mass.
William T. Sedgwick-----	Professor of Biology, Massachusetts Institute of Technology, Boston, Mass.
George C. Whipple-----	Professor of Sanitary Engineering, Harvard University, Cambridge, Mass.
C.-E. A. Winslow-----	Curator, Department of Public Health, American Museum of Natural History, New York City.
Wade H. Frost-----	Passed Assistant Surgeon, Public Health Service, recorder of the commission, Washington, D. C.

The following is the standard recommended by the commission and adopted by the Department of the Treasury:

The Bacteriological Standard for Water.

The following are the maximum limits of permissible bacteriological impurity:

1. The total number of bacteria developing on standard agar plates, incubated 24 hours at 37° C., shall not exceed 100 per cubic centimeter. Provided, that the estimate shall be made from not less than two plates, showing such numbers and distribution of colonies as to indicate that the estimate is reliable and accurate.

2. Not more than one out of five 10 cc. portions of any sample examined shall show the presence of organisms of the bacillus coli group when tested as follows:

(a) Five 10 cc. portions of each sample tested shall be planted, each in a fermentation tube containing not less than 30 cc. of lactose peptone broth. These shall be incubated 48 hours at 37° C. and observed to note gas formation.

(b) From each tube showing gas, more than 5 per cent of the closed arm of fermentation tube, plates shall be made after 48 hours' incubation, upon lactose litmus agar or Endo's medium.

(c) When plate colonies resembling *B. coli* develop upon either of these plate media within 24 hours, a well-isolated characteristic colony shall be fished and transplanted into a lactose-broth fermentation tube, which shall be incubated at 37° C. for 48 hours.

For the purposes of enforcing any regulations which may be based upon these recommendations the following may be considered sufficient evidence of the presence of organisms of the *Bacillus coli* group.

Formation of gas in fermentation tube containing original sample of water (*a*).

Development of acid-forming colonies on lactose litmus agar plates or bright red colonies on Endo's medium plates, when plates are prepared as directed above under (*b*).

The formation of gas, occupying 10 per cent or more of closed arm of fermentation tube, in lactose peptone broth fermentation tube inoculated with colony fished from 24-hour lactose litmus agar or Endo's medium plate.

These steps are selected with reference to demonstrating the presence in the samples examined of aerobic lactose-fermenting organisms.

3. It is recommended, as a routine procedure, that in addition to five 10 cc. portions, one 1 cc. portion, and one 0.1 cc. portion of each sample examined be planted in a lactose peptone broth fermentation tube, in order to demonstrate more fully the extent of pollution in grossly polluted samples.

4. It is recommended that in the above-designated tests the culture media and methods used shall be in accordance with the specifications of the committee on standard methods of water analysis of the American Public Health Association, as set forth in "Standard Methods of Water Analysis" (A. P. H. A., 1912).

The standard as recommended by the commission was submitted with the following report discussing the question of standards of purity for water in general:

First Progress Report of Commission Appointed to Recommend Standards of Purity for Drinking Water Supplied to the Public by Common Carriers Engaged in Interstate Traffic.

LIMITS OF PERMISSIBLE BACTERIOLOGICAL CONTAMINATION.

More than a year has been devoted to consideration and discussion of the problems raised in this connection; but, since the discussion has of necessity been conducted solely through correspondence progress has inevitably been slow, so that, even after so long a time, there remains a number of questions upon which satisfactory agreement has not yet been reached. Your commission, not wishing, on the one hand, to curtail free discussion of points upon which satisfactory agreement has not been reached, nor, on the other hand, to further delay submitting such recommendations as have been agreed upon, respectfully request that this report, though incomplete, be accepted and utilized pending the rendering of a more complete report dealing with questions not included herein.

As a preface to the recommendations which follow it is desired that a clear distinction be made between "standards of purity" and

"limits of permissible impurity." Since purity is an absolute, not a relative, quality, it is obvious that there can be no "standard of purity" other than absolute purity; that this must be the point of departure in estimating deviations from purity or degree of impurity. The recommendations here presented are limits of permissible impurity; they are in no sense "standards of purity." They are recommended not as the nearest approximation to purity which it is desirable to attain; but, on the contrary, as the furthest deviations from purity considered permissible on the water supplies with which this report deals. In this connection it is desired also to emphasize the statement that these limits of impurity are recommended only for application to the special case in question; that is, the control of the sanitary quality of the water supplies of common carriers.

The problem before the commission has been to recommend limits of permissible impurities such as to meet the following requirements:

1. That water supplies conforming to the prescribed requirements shall be free from injurious effects upon the human body and free from offensiveness to the sense of sight, taste, or smell.
2. That supplies of the quality required shall be obtainable by common carriers without prohibitive expense.
3. That the examinations necessary to determine whether a given water supply meets the requirements shall be as few and as simple as consistent with the end in view.

In the attempt to establish limits of this kind it has been inevitable that manifold difficulties should have been encountered. The first of these is the difficulty inherent in any attempt to establish an exact line of demarcation between two such extremes as undoubtedly safe water supplies and those which should assuredly be condemned. This difficulty is enhanced by the necessity of defining uniform limits for waters from such diverse sources and subject to such varied conditions of storage as are the supplies of common carriers, and is still further enhanced by the necessity of limiting to a practicable minimum the number and kind of examinations upon which judgment must be formed. It is a fact so well established as to need no further discussion that the results of bacteriological and chemical examination of a sample of water ought always to be correlated with a knowledge of the source, treatment, and storage of the supply in order to enable a just estimate of the sanitary quality of such supply. With a full appreciation of this fact it is, nevertheless, necessary for our purpose to define limits based solely on the results of laboratory examinations, since it is often in practice impracticable to obtain first-hand authoritative information regarding the source and han-

dling of the supplies of common carriers as actually distributed to the public. The effect of eliminating a portion of the desirable information is to necessitate somewhat more liberal limits for permissible amounts of impurities which are not actually and definitely injurious and which are removable only at great cost, and narrower limits for permissible impurities of definitely dangerous character.

In regard to the physical and chemical properties which render water disagreeable to sight, taste, or smell without producing any concrete harmful effect a difficulty is encountered in that the degree of offensiveness is not accurately measurable, being largely dependent upon individual taste and habits. Again, regarding many of the constituents found in natural waters, as, for example, various mineral salts, it is impossible in the present state of our knowledge to definitely specify the ill effects, if any, which given amounts of these substances may produce. Limits upon these impurities must, accordingly, be so placed as to allow the public an ample margin of safety; but to do this raises the question as to how far it is justifiable to tax the carriers to eliminate impurities whose deleterious effects are so doubtful. This question is the more difficult since it is generally impracticable to remove the mineral salts present in waters by measures of practicable application, and consequently narrow limits to the permissible amounts of such substances will have the effect of eliminating many sources of supply—sources which will frequently be the only ones readily available and may yield waters conforming with entire satisfaction to the other more important sanitary requirements. Finally it is in regard to permissible amounts of mineral constituents that the greatest difficulty is encountered in framing such requirements as shall require only simple methods of examination for their enforcement.

It is because of these difficulties and because of the minor sanitary importance of regulating the chemical impurities of water supplies that these questions have been left for further discussion and this report drafted to deal only with the more important question of regulating bacteriological impurities.

The definition of limits for the permissible bacteriological pollution of the water supplies in question is at once more important and simpler than defining limits for permissible chemical impurities. It is more important because the most dangerous of all the impurities which may be present in drinking water are disease-producing bacteria and other parasitic disease germs. It is simpler than the other problems mentioned, because as the result of a vast deal of careful study which has been devoted to the bacteriological quality of water supplies and their effects upon the public health it is now possible to define with reasonable precision what constitutes a bacteriologically

safe water supply. Finally, strict regulations, requiring common carriers to provide water of undoubtedly safe bacteriological quality, are thoroughly justified, because where water of the requisite degree of purity is not obtainable from a convenient natural source, it is entirely practicable to obtain a pure supply from a moderately polluted source by comparatively simple and inexpensive processes of purification. The art of water purification has, in fact, progressed to the point where there is no longer any excuse whatsoever for using bacteriologically polluted water.

The vast majority of the bacteria found in drinking water supplies are entirely harmless, and regulations designed to insure freedom from disease-producing bacteria must, accordingly, be concerned more with the character than the numbers of the bacteria present. The isolation of the disease-producing bacteria which may be present even in highly polluted waters is so nearly impossible, because of the difficulty of separating them from the much more numerous harmless bacteria with which they are associated, that in actual practice the attempt to directly demonstrate the presence of disease-producing bacteria is seldom made. The bacteriological examination of water supplies has therefore been developed, rather, along the line of determining the number and proportion of certain broad classes of bacteria present in a given volume of water, namely:

1. Bacteria developing distinct colonies within 48 hours at 20° C. on standard gelatin culture medium.
2. Bacteria which developed distinct colonies within 24 hours at 37° C. on standard agar culture medium.
3. Bacteria belonging to the *bacillus coli* group.

It is beyond the scope of this report to enter into a detailed discussion of the interpretation of results of bacteriological examination of water supplies. In general, reliable interpretations can be made only by those having a sufficiently broad knowledge of bacteriology to enable them to apply the established general principles to each case as it is presented.

The bacteria developing on standard gelatin at 20° C. include a relatively large proportion of harmless bacteria which are normally inhabitants of soils and natural waters free from dangerous pollution. The number of bacteria, as estimated by the standard gelatin count, serves in a general way as an index of the cleanliness of the sample; but to properly interpret the results of such a count it is necessary to have knowledge of the source of the sample examined, the nature of the pollution to which it has been exposed, and the opportunities afforded for multiplication of the harmless varieties of bacteria present. On account of the rapid multiplication of harmless varieties of bacteria, which may take place when water is stored in small containers at moderate temperatures,

and the impossibility of making approximately correct allowance for such multiplication, it is believed that the attempt to establish a limit for bacteria developing on gelatin is not practicable for the purposes of the control of supplies of common carriers.

The bacteria developing on standard agar at 37° C. in 24 hours are also chiefly varieties which are entirely harmless. The agar count, however, as compared with the gelatin count, represents a larger proportion of bacteria which find their normal habitat in the animal body and are present in sewage and other discharges from the animal body. Generally speaking, an excessive agar count is sufficient to cause at least a suspicion that the water is polluted with discharges from the animal body, and is therefore unsafe for use as drinking water. Multiplication of the harmless varieties present may, however, take place at ordinary temperatures in water stored in tanks, coolers, bottles, and other containers, thus greatly increasing the agar count, without, of course, increasing the actual dangerous pollution of the water. This introduces a large source of error into the attempt to interpret the significance of agar counts of samples of waters stored for varying lengths of time under conditions more or less favorable to bacterial multiplication. It is largely for this reason that it has been considered necessary to allow very liberal limits to the agar count of the water supplies of common carriers, and to attach to the results of this method of examination a significance much less than ordinarily attaches to the agar count in examining samples of water freshly removed from known sources.

Bacteria of the *bacillus coli* group are normally inhabitants of the intestinal tract of warm-blooded animals, and it is believed that under ordinary conditions they do not multiply, in nature, outside of the animal body; that in drinking water supplies they tend, on the contrary, to die out rather rapidly. The presence of such bacteria in water may accordingly be considered valid evidence that the water has been polluted with the intestinal discharges of some of the higher animals and the numbers present may be considered a fair index of the extent of such pollution. Since practically all of the diseases which are known to be commonly transmitted through water supplies are due to germs which are discharged from the intestines of infected persons, pollution with intestinal discharges is not only the most offensive but by far the most dangerous kind of pollution to which water supplies are exposed.

It is obviously desirable that drinking waters should be at all times entirely free from such offensive and dangerous pollution, but it would be both impracticable and unnecessary to enforce a requirement that the supplies of common carriers should always be entirely

free from bacteria of the *bacillus coli* group. The test is an extremely delicate one, showing traces of pollution not detectable by any other means; all surface waters are naturally subject to more or less pollution with animal excreta, and experience has shown that efficient purification, rendering originally polluted waters entirely safe and satisfactory, never extends to the point of constantly and entirely removing all bacteria of the *bacillus coli* group.

The limits recommended for permissible pollution of this character are as rigid as it is possible to make them without, on the one hand, requiring absolute freedom from such bacteria or, on the other hand, increasing materially the cumbersomeness of the examinations necessary to ascertain compliance with the requirements. Compliance with the requirements herein recommended will insure a quality of water supplies equal to that of municipal supplies which have been demonstrated by experience to be entirely safe and satisfactory and will at the same time impose no great burden upon common carriers, since it is entirely practicable, with moderate expense and pains, to purify water to the degree required.

In submitting the recommendations herewith presented it may be again emphasized that the limits defined are recommended with reference solely to the special object of the control of the supplies of common carriers, having in mind that these supplies constitute a special case because of the following reasons:

1. The supplies come from widely diversified and mixed sources.
2. Samples taken from common carriers represent waters stored for various lengths of time under varying conditions.
3. In view of the impossibility of accurately ascertaining the source and history of each supply examined reliance must be placed upon results of laboratory examination to a greater extent than is necessary or justified in estimating the quality of a supply from a known source with a known history.

It is requested that the recommendation of these hard-and-fast limits of bacteriological impurity be not interpreted as minimizing in any way the importance of field surveys in estimating the sanitary quality of water supplies in general. It is always desirable to obtain information from as many angles as possible, and this is, indeed, necessary in order to form an altogether fair estimate of an individual supply.

Pending the preparation of the report recommending specific limits for permissible chemical impurities, it is recommended that water supplies which may be bacteriologically sanitary be excluded from use when, in the opinion of the Surgeon General, they are definitely injurious to health or grossly offensive by reason of chemical impurities or physical properties.

PLAGUE-PREVENTION.

REPORT OF WORK IN MOBILE, ALA., DURING AUGUST AND SEPTEMBER, 1914.

By S. C. GRUBBS, Surgeon, United States Public Health Service.

Owing to the appearance of bubonic plague in New Orleans this summer, the health authorities and business organizations of Mobile, Ala., decided to assure themselves that their city was not infected with rat plague and to take steps to insure themselves against the entrance and spread of the disease. The United States Public Health Service was requested to send an officer to advise them and to assist in the work of rat eradication. The writer was detailed for the purpose and arrived in Mobile on August 20, and remained there until October 1.

The following work had been done previous to his arrival:

A force of eight rat catchers with one foreman was at work on the water front and in the wholesale district adjoining. The foreman had been sent to New Orleans for instruction, was a practical man, and the results obtained were good. All rats caught were being examined at the Medical College by the city bacteriologist, who had also made a visit to New Orleans to familiarize himself with the service laboratory methods.

It had been agreed, also, to enforce rat proofing in that section of Mobile that lies east of Royal Street and the extensions thereof, and an ordinance to that effect had been drawn up. Royal Street runs in the same direction as the water front on Mobile River and is distant from it from 3 to 6 blocks. The water front is about 2 miles long and the district in question is estimated to contain 1,200 buildings, in addition to all the wharves of the city and the terminals of the railroads.

Public sentiment was considerably aroused but very much divided. While one faction demanded immediate and radical action and believed the danger serious, the other extreme deprecated the agitation, claiming that the danger was small and that the publicity given the danger from plague would hurt business. It was very evident, however, that those favoring action were making headway and had convinced the city authorities that something should be done.

Certain protective measures were being enforced with vessels, both foreign and local, namely: Rat guards were required on all lines, vessels had to be fended off 8 feet, and skids and gangways had to be removed when not in use. These measures were and are still being enforced by a medical inspector and one guard.

The following work was done under my direction:

Rat Catching and Extermination.

Few changes were made under this head, as the work was satisfactory. The rat catchers were divided into two squads of four men each with a foreman; accurate records of each man's work were begun with a daily summary to be filled in at the office. Poisoning was begun, especially along the wharves, about 300 poisons per day being put out. A bonus of 4 cents per rat for all over 250 rats caught each month was given each trapper, beginning with September, and 1 cent per rat to each foreman for all over 1,000 caught by his squad.

Although the trapping was confined to the district east of Royal Street the catch continued to be satisfactory and the men worked with enthusiasm. During the month of September 2,392 rats were caught, of which 2,284 were examined at the laboratory.

The efficiency of this branch of the work was increased by placing it under the more immediate supervision of the medical inspector of the water front and by using the services for 10 days of one of the experienced men from New Orleans, who was released for that period in order that he might come to Mobile.

Rat-Proofing Ordinances.

The plan of rat proofing that section of Mobile east of Royal Street was indorsed and after one general meeting the ordinance, already drawn up, was passed by the city commissioners. It was found, however, that a considerable number of conditions likely to arise had not been covered and that the enforcement of the ordinance would be difficult as it stood, so it was thought best to rewrite it "in toto." After this was done the new ordinance¹ was submitted to three of the service officers on plague duty in New Orleans and to the Mobile city attorney, and was then passed without change as a substitute for the previous ordinance. In general it provides for the absolute rat proofing of all buildings east of Royal Street, and that all new buildings or substantial repairs in any part of the city shall be of rat-proof construction. It prescribes in detail how rat proofing shall be done, and has besides a general clause to cover any condition that may arise not specifically mentioned. It prescribes penalties for nonconformance and allows each day of nonconformance to be treated as a separate offense. It allows action to be taken against tenants as well as owners. It does not mention wharves or stables, as these were to be treated in a separate ordinance.

It had been decided that all stables should be rat proofed, and an ordinance to require the sanitary construction of stables was already

¹ Public Health Reports, Sept. 18, 1914, p. 2460.

on the statute books but had been thrown out by the courts as discriminatory and unreasonable. With this ordinance as a basis, a separate ordinance¹ was drawn requiring all stables in the city to be rat proof, fly proof, and be of sanitary construction. This was read by the commissioners without comment on September 29, 1914, and was passed October 6.

An ordinance was also recommended which would allow the city health officer to enforce the rat proofing of any building that is west of Royal Street which for any reason was a very bad rat harbor, but the commissioners decided to take no action in this direction. No ordinance was passed requiring the rat proofing of the wharves, but it was urged that careful study of the water front be made, that action be taken in regard to such wharves as were in bad condition, and that rules be drawn so that in the future only rat-proof wharves would be built. This matter is now under consideration.

An adequate garbage ordinance was already on the statute books.

Organization.

The following plan of organization was presented to the city commissioners and accepted by them:

The enforcement of the rat-proofing ordinance is to be a separate division of the health department, and the personnel is to have no other duties; the force is to consist of 1 engineer, 6 inspectors, 1 stenographer, 1 chauffeur.

The number of inspectors was afterwards reduced to four.

The cost of this work to the city, including the rat catching, was estimated at \$1,500 per month.

This plan of organization was accepted and work with inspectors was begun on August 27, 1914, but many changes had to be made before satisfactory men were found.

An office was opened in a room assigned in the board of health building and office appliances were installed at the same time. A difficult task was to find the right man for the position of engineer—so called—who was to head the rat-proofing division. After careful examination of many applicants Mr. R. P. Du Valle, a local civil engineer of ability and energy, was chosen.

Method of Procedure.

The district east of Royal Street was arbitrarily divided into eight districts for the purpose of inspection and filing of records. Inspections were begun, notes being made on 5 by 8 form cards, one for each house, which were made out on the premises. These inspections were made in detail, and the record shows the condition of every part of the property. On the reverse of each card a sketch was made

¹ Public Health Reports, Oct. 23, 1914, p. 1839.

showing the outline of the ground plan and each floor. These cards are filed in the office.

It required several days of instruction and many changes in personnel before proper inspections were made and recorded, but a standard was arrived at and is being maintained.

As soon as the engineer himself became familiar with the principles of rat proofing, had devoted several days to general inspections, and had taken the regular schooling that was being given the inspectors, the following procedure was adopted, beginning September 7, on which day the rat proofing ordinance became effective:

The engineer takes with him each inspector, at a certain hour, and the two inspect one or more buildings that this inspector has already gone over. The card record previously made is taken along, and after reviewing and checking it up the engineer notes on the regular blank form of instructions what is necessary to bring the premises in conformity with the ordinance. At the office these instructions are rewritten in duplicate, initialed by the engineer, and signed by the health officer. One copy is served on the property owners, together with a copy of the ordinance, and the other copy is filed. The notice states that work must be begun within 48 hours. The inspector continues to visit each day all houses in his district regarding which notices have been served, as well as going on with new work.

New Buildings.

In order to enforce that provision of the ordinance requiring new buildings or substantial repairs to same to be rat proof in construction, a list of building permits issued is being furnished each week by the city engineer and a form letter is written to both the owner and the builder of each new building calling attention to the new requirements and inclosing a marked copy of the ordinance. In addition, the building permit is stamped "subject to the provisions of the rat-proofing ordinance of September 1, 1914." In addition to this a weekly inspection has been made of all new buildings and any work in violation of the ordinance has been stopped.

A board of three architects has been appointed to revise the building code of Mobile. The new code will prescribe rules requiring rat proofing of all new buildings as specified in the ordinance and according to the uses to which they are to be put. When this new code is effective its enforcement will be done by the city engineer.

There has been but one attempt to contest the rat-proofing ordinance and that was withdrawn after reaching court, as the defendant agreed, on advice of his attorney, to begin the prescribed work of rat proofing at once.

Publicity.

Although the county medical society, the chamber of commerce, the Rotary Club, and morning newspaper were thoroughly alive to the advisability of preparing for the possible advent of plague, and both the Surgeon General and Asst. Surg. Gen. Rucker had been invited to the city, and the people were prepared for action, it was nevertheless necessary to keep up the interest. To this end, the aid of both the Mobile Register and the Mobile Item was requested and they have printed news of the work, together with stories or advertisements practically every day. Editorially, also, the work has been encouraged in every way, and the thanks of those charged with its completion are due to both papers.

The Chamber of Commerce and Business Mens' League, through their ways and means and their public-health committees, are helping. They have sent circular letters to practically every business house in the wholesale district, asking cooperation. The Rotary Club subscribed over \$2,000 and through their public health committee placed this sum at the disposal of the Service officer.

It was suggested that these organizations should—

1. Take charge of the publicity.
2. Use their influence to stop any individual resistance to rat proofing.
3. Assist any poor person affected by the work.
4. Study any of the larger problems that might arise and use their influence for a broad, general sanitary policy.

To accomplish this the three committees each appointed two of their members to form a central committee; the six then selected a seventh, who was to be chairman. This central committee was to deal direct with the Federal and local health authorities.

In order to increase public interest and to show exactly what rat proofing means, an exhibit was made of models and drawings. Two models were half natural size and showed a ground floor corner of a building, one of wooden construction and rat infected, the other of concrete and wood but rat proof.

A small wooden cottage was made showing rat proofing by elevation, by flashing, and by blocking off double walls. This exhibit is now being shown in different store windows, together with the posters and explanations, and is attracting attention. The expense of this exhibit was borne by the Mobile Rotary Club. It will probably be added to and will be sent to the Southern Health Exhibition at Jacksonville, Fla., the last part of November.

Posters on the rat question have been put in the street cars and show windows, some comical, some instructive, and some in jingle form. Competitions for posters, compositions by school children, and for rhymes have been recommended as a part of the publicity work undertaken by the chamber of commerce.

Talks have been given before several organizations and reports of these, one in full, were published in the papers.

In this campaign the endeavor has been made to emphasize the following:

1. Rat proofing and other plague-prevention work should anticipate and not wait for actual infection.
2. Rat catching and examination are of value to assure the absence of rat plague, but otherwise not worth what they cost.
3. Rat guards, fending off of vessels, and similar measures are of temporary value only.
4. Rat proofing is the best permanent plague-prevention work that a city can do.
5. Aside from protection against plague, rat proofing pays, on account of—
 - (a) Elimination of destruction of property by rats.
 - (b) Decrease of repair bills on account of wood being replaced by more enduring material.
 - (c) Decrease of fire insurance rates.
 - (d) Increased efficiency due to trucking and similar labor on concrete floors being easier and because no delays are caused by frequent repairs.

Progress Made.

Up to October 1, 1914, the date of departure of the service representative, which was three weeks after the ordinance became effective, more than half of the 1,200 houses east of Royal Street had been inspected and the records filed; 166 buildings had been reinspected; notices specifying necessary changes had been sent; and work was under way or completed in 33 buildings.

Conclusion.

Mobile is doing pioneer work in that both the city and the property owners are spending money to protect themselves against plague before the disease has reached them.

The property owners of Mobile are meeting the expense in good spirit in spite of the "hard times," and often say that the expense is less than the benefit, aside from the plague standpoint. The slogan adopted is "Mobile has no plague and does not propose to have any." They have seen that temporary measures, especially in regard to shipping, are hard to enforce, and are a constant irritation and expense to commerce, but that permanent rat proofing, once paid for, begins to yield dividends at once in protection and repairs avoided.

Rat catching and examination are now going on in several other cities, notably in the South, but inquiry has failed to reveal any uninfected city where rat proofing has been done.

The work of creating a rat-proof zone along the water front of Mobile is proceeding in an orderly manner. It is not being pushed with the haste necessary when plague is present, but each individual is required to do his share promptly when his time comes. It will require over six months to complete the work. At the same time only rat-proof structures may be erected in other parts of the city.

Squirrels collected and examined for plague.

Contra Costa County.....	209
San Benito County.....	165
Alameda County.....	44
Total.....	418
Found infected.....	None.

Ranches inspected and hunted over.

Contra Costa County.....	42
Alameda County.....	5
San Benito County.....	21
Total.....	68

Operations on water front.

Vessels inspected for rat guards.....	29
Reinspections made on vessels.....	19
New rat guards procured.....	19
Defective rat guards repaired.....	11
Vessels on which cargo was inspected.....	

	Condition.	Rat evidence.
Steamer Lurline, from Hilo:		
75 bundles hemp.....	O. K.....	None.
150 cases pineapples.....	O. K.....	None.
175 sacks sugar.....	O. K.....	None.
Steamers Governor, Congress, Admiral Schley, and Admiral Farragut:		
125 boxes fruit.....	O. K.....	None.
425 cases canned goods, macaroni, and empty.....	O. K.....	None.
30 crates.....	O. K.....	None.
15 rolls paper.....	O. K.....	None.
1,275 sacks flour, wheat, bran, and grain.....	O. K.....	None.

Rats trapped on wharves and water front ...	27	Poisons placed on water front (pieces).....	6,600
Rats trapped on vessels.....	29	Poisons placed within P. P. I. E. grounds	
Traps set on wharves and water front.....	163	(pieces).....	14,000
Traps set on vessels.....	153	Bait used on water front and vessels, bacon	
Vessels trapped on.....	15	(pounds).....	6
Vessels searched for dead rats after fumiga-		Amount of bread used in poisoning water	
tion.....	1	front (loaves).....	22
Dead rats taken from vessels after fumiga-		Pounds of poison used on water front.....	11
tion.....	13		

Operations are being carried on under Federal supervision on the following-named properties, labor and material being furnished:

Names.	Location.	Treated.
Poisoned grain:		
Moraga Grant.....	Contra Costa County.....	860 acres.
Peoples Water Co.....	do.....	3,425 acres.
Avals Tract.....	do.....	254 acres.
McLaughlin Co.....	do.....	2,240 acres.
J. M. Holloway.....	Merced County.....	960 acres.
R. L. Peeler.....	do.....	110 acres.
Southern Pacific right of way.....	Alameda County.....	18 miles.
Western Pacific right of way.....	do.....	18 miles.
Destructors:		
Southern Pacific.....	Merced County.....	2½ miles.
Land inspected:		
McLaughlin Co.....	Contra Costa County.....	2,240 acres.
Southern Pacific.....	Alameda County.....	18 miles.
Do.....	Merced County.....	2½ miles.
Holes treated:		
Southern Pacific.....	do.....	2,586 holes.

The work is being carried on in the following-named counties: Alameda, Contra Costa, San Francisco, San Joaquin, Monterey, Merced, Stanislaus, San Benito, Santa Cruz, and Santa Clara.

LOUISIANA—NEW ORLEANS.

The following report of plague-eradication work at New Orleans for the week ended October 24, 1914, has been received from Asst. Surg. Gen. Rucker, of the United States Public Health Service, in charge of the work:

OUTGOING QUARANTINE.			
Vessels fumigated with sulphur.....	54	Nebraska.....	6
Vessels fumigated with carbon monoxide....	25	New Jersey.....	4
Vessels fumigated with hydrocyanic gas....	3	New Mexico.....	1
Sulphur used..... pounds..	5,902	New York.....	12
Coke consumed in carbon monoxide fumiga- tion..... pounds..	34,300	Ohio.....	78
Clean bills of health issued.....	36	Oklahoma.....	7
Foul bills of health issued.....	6	Pennsylvania.....	11
		Tennessee.....	66
		Texas.....	228
		Virginia.....	7
		West Virginia.....	1
		Wisconsin.....	21
		Canada.....	3
OVERLAND FREIGHT INSPECTION.		FIELD OPERATIONS.	
Cars inspected and passed.....	1,097	Number of rats trapped.....	7,074
Cars rat proofed.....	2,158	Number of premises fumigated.....	5
Cars condemned.....	17	Premises disinfected.....	675
Total cars inspected.....	3,272	Premises inspected.....	9,542
Rodents killed in cars.....	1	Poisons placed.....	4,500
		Notices served.....	3,338
DESTINATION OF RAILROAD CARS INSPECTED WEEK ENDED OCT. 24.		BUILDINGS RAT PROOFED.	
Alabama.....	101	By elevation.....	24
Arkansas.....	18	By marginal concrete wall.....	86
California.....	33	By concrete floor and walls.....	175
Carolina, North.....	7	By minor repairs.....	25
Carolina, South.....	1	Square yards of concrete laid.....	20,074
Colorado.....	5	Total buildings rat proofed.....	326
Connecticut.....	1	Buildings rat proofed to date.....	2,146
Dakota, North.....	5	Abatements.....	715
Dakota, South.....	7	Abatements to date.....	11,555
Delaware.....	1	Dead inspected.....	121
Florida.....	68		
Georgia.....	37	LABORATORY OPERATIONS.	
Idaho.....	3	Rats examined.....	6,688
Illinois.....	451	Mus norvegicus.....	3,623
Indiana.....	56	Mus alexandrinus.....	93
Iowa.....	16	Mus rattus.....	49
Kansas.....	10	Mus musculus.....	3,015
Kentucky.....	42	Unclassified putrid.....	398
Louisiana.....	1,091	Total rodents received at laboratory.....	7,079
Maryland.....	3	Number of suspicious rats.....	13
Massachusetts.....	1	Plague rats confirmed.....	1
Michigan.....	36		
Minnesota.....	21		
Mississippi.....	612		
Maine.....	1		
Missouri.....	93		

Plague rats.

Case No.	Address.	Captured.	Diagnosis confirmed.	Treatment of premises.
189	2721 Josephine Street.....	Oct. 19	Oct. 19	Destruction of rat harbors. Disinfection. Rat proofing initiated. Intensive trapping.

Summary.

Total number of rodents captured to Oct. 24.....	126,966
Total number of rodents examined to Oct. 24.....	105,701
Rodent cases to Oct. 24, by species:	
<i>Mus rattus</i>	10
<i>Mus alexandrinus</i>	3
<i>Mus musculus</i>	1
<i>Mus norvegicus</i>	175
Total rodent cases up to Oct. 24.....	189

Rat Proofing Public Wharves.

The following resolution was adopted October 28, 1914, by the Board of Commissioners of the port of New Orleans:

Whereas the rat proofing of the public warehouses is one of the most important steps in the elimination and prevention of bubonic plague from the city of New Orleans: Therefore be it

Resolved by the Board of Commissioners of the port of New Orleans, That it be made the definite policy of this board to place all of the public wharves under its jurisdiction in rat-proof condition as rapidly as the finances of the board will permit; and be it further

Resolved, That the rat proofing of the Toulouse Street wharf and the Girod Street wharf be started as soon as the necessary plans can be made, and that the Erato Street wharf, the Dumaine and Julia Street wharves be placed in rat-proof condition within the next 12 months, the work on said wharves to be done as rapidly as funds become available.

WASHINGTON—SEATTLE.**Plague Rats.**

Two plague-infected rats have been found at Seattle, 1 on October 31 and 1 on November 2, 1914.

The following report of plague-eradication work at Seattle for the week ended October 10, 1914, has been received from Surg. Lloyd, of the United States Public Health Service, in charge of the work:

RAT PROOFING.		LABORATORY AND RODENT OPERATIONS.	
New buildings inspected.....	67	Dead rodents received.....	29
Total concrete laid, N. B. (54,808 square feet):		Rodents trapped and killed.....	453
Basements concreted, N. B. (27,840 square feet).....	31	Rodents recovered after fumigation.....	54
Floors concreted, N. B. (21,780 square feet).....	19	Total.....	536
Yards, etc., concreted, N. B. (1,499 square feet).....	3	Rodents examined for plague infection.....	394
Sidewalks concreted (3,680 square feet).....		Rodents proven plague infected.....	None.
New buildings elevated.....	4	Blocks poisoned.....	17
Old buildings inspected.....	1	Poison distributed, pounds.....	50
Premises rat proofed, concrete.....	51	CLASSIFICATION OF RODENTS.	
Buildings raised.....	2	<i>Mus rattus</i>	18
WATER FRONT.		<i>Mus alexandrinus</i>	104
Vessels inspected and histories recorded....	8	<i>Mus norvegicus</i>	292
Vessels fumigated.....	6	<i>Mus musculus</i>	96
Sulphur used, pounds.....	3,500	Not classified.....	54
Vessels searched for dead rats.....	5	RODENTS EXAMINED IN TACOMA.	
Fumigation certificates issued.....	6	<i>Mus norvegicus</i>	18
Canal Zone certificates issued.....	3	Rodents infected.....	None.
Port sanitary statements issued.....	50		

The usual day and night patrol was maintained to enforce rat guarding.

HAWAII—HONOLULU.

The following report of plague-eradication work at Honolulu for the week ended October 10, 1914, has been received from Surg. Trotter, of the United States Public Health Service:

Total rats and mongoose taken.....	493	Classification of rats killed by sulphur dioxide:	
Rats trapped.....	457	<i>Mus alexandrinus</i>	13
Mongoose trapped.....	12	<i>Mus rattus</i>	7
Rats found dead (<i>Mus alexandrinus</i>).....	1	Last case rat plague, Aiea, 9 miles from Honolulu,	
Rats killed by sulphur dioxide.....	20	April 12, 1910.	
Examined microscopically.....	424	Last case human plague, Honolulu, July 10, 1910,	
Plague infection.....	0	Last case rat plague, Kalopa Stable, Paauhau, Ha-	
Classification of rats trapped:		waii, Aug. 29, 1914.	
<i>Mus alexandrinus</i>	240	Last case human plague, Paauhau Landing, Ha-	
<i>Mus musculus</i>	130	waii, August 17, 1914.	
<i>Mus norvegicus</i>	52		
<i>Mus rattus</i>	35		

PREVALENCE OF DISEASE.

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.

IN CERTAIN STATES AND CITIES.

CEREBROSPINAL MENINGITIS.

State Reports for September, 1914.

Places.	New cases reported.	Places.	New cases reported.
Massachusetts:		New York:	
Essex County—		Erie County.....	2
Lawrence.....	1	Niagara County.....	1
Peabody.....	1	Schenectady County.....	2
Middlesex County—		Steuben County.....	1
Lowell.....	1	New York City.....	22
Malden.....	1		
Plymouth County—			
Brockton.....	1		
Suffolk County—			
Boston.....	1		
Total.....	6	Total.....	28

City Reports for Week Ended Oct. 17, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Baltimore, Md.....	1	1	Los Angeles, Cal.....	2	3
Chicago, Ill.....	1	1	New York, N. Y.....	9	4
Cleveland, Ohio.....	1		Philadelphia, Pa.....	2	1
Detroit, Mich.....			Providence, R. I.....		1
Jersey City, N. J.....	1	1	St. Louis, Mo.....	1	

DIPHTHERIA.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2933.

ERYSIPELAS.

City Reports for Week Ended Oct. 17, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Baltimore, Md.....		1	Los Angeles, Cal.....	1	
Buffalo, N. Y.....	4		Milwaukee, Wis.....	2	
Chicago, Ill.....	10		Passaic, N. J.....	1	
Cincinnati, Ohio.....	1		Philadelphia, Pa.....	4	
Cleveland, Ohio.....	4	1	Pittsburgh, Pa.....	10	1
Harrisburg, Pa.....	1		Reading, Pa.....	3	
Jersey City, N. J.....		1	St. Louis, Mo.....	3	
Kansas City, Mo.....	1				

MEASLES.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2983.

PELLAGRA.

City Reports for Week Ended Oct. 17, 1914.

During the week ended October 17, 1914, pellagra was reported by cities as follows: Charleston, S. C., 3 deaths; New Orleans, La., 1 case; Richmond, Va., 1 case.

PNEUMONIA.

City Reports for Week Ended Oct. 17, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Ann Arbor, Mich.....	1	.....	Newport, Ky.....	2	2
Berkeley, Cal.....	1	2	Philadelphia, Pa.....	15	36
Chicago, Ill.....	70	38	Pittsburgh, Pa.....	22	21
Cleveland, Ohio.....	13	6	Reading, Pa.....	3	.....
Erie, Pa.....	1	.....	Schenectady, N. Y.....	6	4
Kalamazoo, Mich.....	1	1	South Bethlehem, Pa.....	2	1
Kansas City, Kans.....	2	4	Springfield, Ill.....	4	4
Los Angeles, Cal.....	9	6	York, Pa.....	1	.....
Manchester, N. H.....	1	1			

POLIOMYELITIS (INFANTILE PARALYSIS).

State Reports for September, 1914.

Places.	New cases reported.	Places.	New cases reported.
Massachusetts:		Massachusetts—Continued.	
Berkshire County—		Worcester County—	
Pittsfield.....	1	Gardner.....	1
Bristol County—		Leominster.....	1
Fall River.....	1	Total.....	25
New Bedford.....	1		
Essex County—		New York:	
Andover.....	1	Broome County.....	1
Haverhill.....	2	Clinton County.....	3
Ipswich.....	1	Columbia County.....	1
Lynn.....	1	Franklin County.....	6
Hampden County—		Herkimer County.....	1
Springfield.....	1	Madison County.....	2
Westfield.....	1	Onondaga County.....	2
Middlesex County—		Rensselaer County.....	3
Acton.....	2	Tioga County.....	1
Arlington.....	1	Westchester County.....	2
Cambridge.....	1	Wyoming County.....	1
Frammingham.....	1	New York City.....	26
Lowell.....	4	Total.....	49
Reading.....	1		
Plymouth County—			
East Bridgewater.....	1		
Suffolk County—			
Boston.....	2		

City Reports for Week Ended Oct. 17, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Boston, Mass.....	1	.....	Haverhill, Mass.....	2	.....
Buffalo, N. Y.....	1	.....	Lowell, Mass.....	1	.....
Cambridge, Mass.....	1	.....	New York, N. Y.....	2	1
Chicago, Ill.....	6	1	Philadelphia, Pa.....	1	.....

RABIES.**New York—Rochester.**

During the week ended October 17, 1914, a fatal case of rabies was notified at Rochester, N. Y.

SCARLET FEVER.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2983.

SMALLPOX.**Maryland—Hagerstown.**

Collaborating Epidemiologist Fulton reported by telegraph November 4, 1914, that a new focus of smallpox infection had been reported in Maryland, 1 case of the disease having been notified at Hagerstown, Washington County.

State Reports for September, 1914.

Places.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within seven years preceding attack.	Number last vaccinated more than seven years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Massachusetts:						
Worcester County—Leicester.....	1	1		1		
New York:						
Chautauqua County.....	1			1		
Erie County.....	1				1	
Niagara County.....	1				1	
Total.....	3			1	2	

City Reports for Week Ended Oct. 17, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Binghamton, N. Y.....	4		Muncie, Ind.....	3	
Butte, Mont.....	1		Nashville, Tenn.....	3	
Detroit, Mich.....	5		Portland, Oreg.....	1	
Duluth, Minn.....	1		Racine, Wis.....	2	
Kansas City, Mo.....	1		Springfield, Ill.....	1	
Marquette, Wis.....	1		Washington, D. C.....	2	
Milwaukee, Wis.....	21		Zanesville, Ohio.....	1	

TETANUS.**City Reports for Week Ended Oct. 17, 1914.**

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Boston, Mass.....		1	Philadelphia, Pa.....	1	1
Brownsville, Tex.....	1		St. Louis, Mo.....	1	1
Galveston, Tex.....		1	San Diego, Cal.....	1	1
Harrisburg, Pa.....	1		San Juan, P. R.....	1	1
Mobile, Ala.....		1	Wilmington, N. C.....		1
New York, N. Y.....		1			

¹ Neonatorum.

TUBERCULOSIS.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2983.

TYPHOID FEVER.

State Reports for September, 1914.

Places.	New cases reported.	Places.	New cases reported.
Massachusetts:		Massachusetts—Continued.	
Barnstable County—		Worcester County—	
Falmouth.....	1	Ashburnham.....	1
Berkshire County—		Auburn.....	1
Adams.....	3	Barre.....	1
Cheshire.....	1	Fitchburg.....	4
Florida.....	1	Gardner.....	2
North Adams.....	12	Leicester.....	1
Pittsfield.....	6	Leominster.....	2
Bristol County—		Northboro.....	1
Attleboro.....	1	Sutton.....	1
Fairhaven.....	1	Webster.....	4
Fall River.....	14	Worcester.....	30
Mansfield.....	9		
New Bedford.....	53	Total.....	385
North Attleboro.....	2		
Taunton.....	1	New York:	
Essex County—		Albany County.....	12
Beverly.....	2	Allegany County.....	3
Boxford.....	1	Broome County.....	2
Haverhill.....	7	Cattaraugus County.....	6
Ipswich.....	1	Cayuga County.....	3
Lawrence.....	13	Chautauqua County.....	6
Lynn.....	15	Chemung County.....	15
Newburyport.....	2	Chemung County.....	4
Peabody.....	3	Clinton County.....	6
Rowley.....	4	Columbia County.....	22
Salem.....	3	Cortland County.....	8
Franklin County—		Delaware County.....	6
Greenfield.....	3	Dutchess County.....	12
Montague.....	1	Erie County.....	95
Hampden County—		Essex County.....	1
Chicopee.....	4	Franklin County.....	6
East Longmeadow.....	1	Genee County.....	3
Holyoke.....	1	Greene County.....	7
Palmer.....	2	Herkimer County.....	6
Southwick.....	1	Jefferson County.....	9
Springfield.....	17	Lewis County.....	1
Westfield.....	4	Livingston County.....	3
Hampshire County—		Madison County.....	4
Easthampton.....	1	Monroe County.....	13
Northampton.....	2	Montgomery County.....	3
Williamsburg.....	1	Niagara County.....	29
Middlesex County—		Oneida County.....	6
Acton.....	1	Onondaga County.....	17
Belmont.....	1	Ontario County.....	3
Cambridge.....	8	Orange County.....	8
Everett.....	2	Orleans County.....	2
Lexington.....	2	Oswego County.....	5
Lowell.....	10	Otsego County.....	5
Malden.....	2	Putnam County.....	1
Marlboro.....	1	Rensselaer County.....	10
Medford.....	2	Rockland County.....	3
Natick.....	1	St. Lawrence County.....	14
Newton.....	5	Saratoga County.....	21
Somerville.....	4	Schenectady County.....	11
Tyngsboro.....	1	Schoharie County.....	4
Wakefield.....	1	Schuyler County.....	2
Waltham.....	2	Seneca County.....	1
Norfolk County—		Steuben County.....	23
Braintree.....	1	Suffolk County.....	5
Brookline.....	6	Sullivan County.....	1
Medway.....	1	Tioga County.....	11
Quincy.....	3	Tompkins County.....	15
Weymouth.....	6	Ulster County.....	9
Plymouth County—		Warren County.....	2
Abington.....	2	Wayne County.....	1
Bridgewater.....	1	Westchester County.....	29
Brocton.....	9	Wyoming County.....	2
Carver.....	1	New York City.....	470
Hull.....	1		
Whitman.....	1	Total.....	966
Suffolk County—			
Boston.....	64		
Chelsea.....	4		

TYPHOID FEVER—Continued.

City Reports for Week Ended Oct. 17, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Altoona, Pa.	1		Manchester, N. H.	1	
Ann Arbor, Mich.	1		Marinette, Wis.	2	
Atlantic City, N. J.	4		Martinsburg, W. Va.	2	
Auburn, N. Y.	1		Medford, Mass.	1	1
Aurora, Ill.	1		Milwaukee, Wis.	4	
Austin, Tex.	2	1	Mobile, Ala.	2	
Baltimore, Md.	37	7	Muncie, Ind.	1	
Beaver Falls, Pa.	1		Nanticoke, Pa.	1	
Bellingham, Wash.	1		Nashville, Tenn.	23	
Binghamton, N. Y.		1	Newark, N. J.	4	1
Boston, Mass.	23	1	New Bedford, Mass.	10	
Brookton, Mass.	1	1	New Castle, Pa.	4	
Brookline, Mass.	1		New London, Conn.	1	
Buffalo, N. Y.	10	6	New Orleans, La.	14	2
Butte, Mont.	2		Newton, Mass.	4	1
Cambridge, Mass.	5	1	New York, N. Y.	84	7
Cambridge, Ohio.	2		Norfolk, Va.	1	
Camden, N. J.	6		Pawtucket, R. I.		1
Charleston, S. C.	4	1	Philadelphia, Pa.	15	
Chelsea, Mass.	4		Pittsburgh, Pa.	12	3
Chicago, Ill.	56	2	Portland, Me.	34	1
Chicopee, Mass.	2		Portland, Oreg.	1	
Cincinnati, Ohio.	5	1	Providence, R. I.	8	1
Cleveland, Ohio.	11	4	Reading, Pa.	15	1
Detroit, Mich.	5	3	Richmond, Va.	3	
Duluth, Minn.	2	1	Roanoke, Va.	2	1
East Orange, N. J.	1		Rochester, N. Y.	10	
Elmira, N. Y.	1		Sacramento, Cal.	1	1
Evansville, Ind.	1		Saginaw, Mich.	2	
Fall River, Mass.	1		St. Louis, Mo.	10	3
Florence, S. C.	1	1	San Juan, P. R.	2	1
Galveston, Tex.	1		Schenectady, N. Y.	1	
Grand Rapids, Mich.	5	2	South Bend, Ind.	3	1
Hartford, Conn.	5		South Bethlehem, Pa.	1	
Haverhill, Mass.	1	1	Springfield, Ill.	4	
Jersey City, N. J.	2		Springfield, Mass.	1	
Johnstown, Pa.	2		Springfield, Ohio.	1	
Kansas City, Kans.	3		Steelton, Pa.	2	
Kansas City, Mo.	3	1	Toledo, Ohio.	5	6
Kearny, N. J.	33		Trenton, N. J.	1	
Kokomo, Ind.	5		Waltham, Mass.	1	
Lancaster, Pa.	2		Washington, D. C.	18	1
Lexington, Ky.	3		Wilkes-Barre, Pa.	4	
Little Rock, Ark.	2		Wilmington, N. C.	1	
Lowell, Mass.	2		Worcester, Mass.	3	
Lynchburg, Va.	1		Yonkers, N. Y.	2	1
Lynn, Mass.	2		York, Pa.	3	

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

Savannah, Ga.—Diphtheria.

Passed Asst. Surg. Ridlon reported by telegraph that during the week ended October 31, 1914, 18 cases of diphtheria, with 1 death, had been notified in Savannah, Ga., making a total of 68 cases, with 2 deaths, reported since September 19, 1914.

State Reports for September, 1914.

States.	Cases reported.		
	Diphtheria.	Measles.	Scarlet fever.
Massachusetts	512	128	307
New York	1,353	503	592

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

City Reports for Week Ended Oct. 17, 1914.

Cities.	Population as of July 1, 1914. (Esti- mated by United States Census Bureau.)	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tubercu- losis.		
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Over 500,000 inhabitants:											
Baltimore, Md.	579,590	146	39		1		5		42	17	
Boston, Mass.	733,802	226	57	5	28		37	2	52	15	
Chicago, Ill.	2,393,325	559	149	17	5		36	2	186	57	
Cleveland, Ohio.	639,431	143	74	8	10		12	1	30	14	
Detroit, Mich.	537,650	130	46				21	1	21	11	
New York, N. Y.	5,334,537	1,185	291	19	79		73	1	384	135	
Philadelphia, Pa.	1,657,810	389	48	1	30	1	20		100	33	
Pittsburgh, Pa.	564,878	160	58	5	36	1	62	3	33	11	
St. Louis, Mo.	734,667	197	70	5	5		22	2	33	11	
From 300,000 to 500,000 inhabit- ants:											
Buffalo, N. Y.	454,112	103	17	1	2		14		22	11	
Cincinnati, Ohio.	402,175	107	15	1	1		6		22	12	
Los Angeles, Cal.	438,914	31	19	1	7		19		34	21	
Milwaukee, Wis.	417,054	81	30	4	4	1	13		20	8	
Newark, N. J.	389,106	90	21		9		11	1	37	12	
New Orleans, La.	361,221	125	56	2			1		50	17	
Washington, D. C.	353,378	85	7	1			4		23	7	
From 200,000 to 300,000 inhabit- ants:											
Jersey City, N. J.	293,921	59	25	2			5		22	4	
Kansas City, Mo.	281,911	70	30	3			4		5	4	
Portland, Oreg.	260,601	30	8	1	1		4		9	5	
Providence, R. I.	245,090	75	8	6	3		23	1		4	
Rochester, N. Y.	241,518	62	7		1		2		8	5	
Seattle, Wash.	313,029	55	1				3		5	5	
From 100,000 to 200,000 inhabit- ants:											
Cambridge, Mass.	110,357	30	5		8		1		8	3	
Camden, N. J.	102,465		7		9				1		
Fall River, Mass.	125,443	37	4		3		1		6	4	
Grand Rapids, Mich.	123,227	31	5				5	1	4		
Hartford, Conn.	107,038	28	7		1				5	2	
Lowell, Mass.	111,004	29	1				1		4	2	
Nashville, Tenn.	114,899	38	3				5		2	5	
New Bedford, Mass.	111,230	29	3		3		4		3	3	
Reading, Pa.	103,361	43	2	1			1			5	
Richmond, Va.	134,917	40	15	1			10		2	2	
Springfield, Mass.	100,375	24	5		6					4	
Toledo, Ohio.	184,126	50	4		2				28	1	
Trenton, N. J.	106,831	49	7	1			1		7	1	
Worcester, Mass.	157,732	38	11	1			2		3	2	
From 50,000 to 100,000 inhabit- ants:											
Altoona, Pa.	56,553	16	2	1			1		2	2	
Atlantic City, N. J.	53,952	8					1				
Bayonne, N. J.	65,271	20	2	1					4		
Berkeley, Cal.	52,105	8			2					2	
Binghamton, N. Y.	52,191	15	6						2		
Brockton, Mass.	64,043	10	5	2					3		
Charleston, S. C.	60,121	21	5								
Duluth, Minn.	89,331								3		
Erie, Pa.	72,401	14	7						1		
Evansville, Ind.	71,284	18	9		18					5	
Harrisburg, Pa.	69,493	20	2				1		3	3	
Johnstown, Pa.	64,642	12	16				2		1	1	
Kansas City, Kans.	94,271		8				2		1	4	
Little Rock, Ark.	53,811	26									
Lynn, Mass.	98,207	15	16	1			3		1	3	
Manchester, N. H.	75,635	13	1				1		2	2	
Mobile, Ala.	55,573	16	3							1	
Passaic, N. J.	66,276	17	2	1			1		3	1	
Pawtucket, R. I.	56,901	19	4							2	
Portland, Me.	62,161	12	1							1	
Saginaw, Mich.	53,988	10	3	1	1				2		
Schenectady, N. Y.	90,503	24	5		2				1	3	
South Bend, Ind.	65,114	15			1						
Springfield, Ill.	57,972	17	6	2			4		3	3	
Springfield, Ohio.	50,058	12	2						1	2	
Wilkes-Barre, Pa.	73,660	11	4				1		4		
Yonkers, N. Y.	93,383	13	1				9		4		

DIPHThERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

City Reports for Week Ended Oct. 17, 1914—Continued.

Cities.	Population as of July 1, 1914. (Esti- mated by United States Census Bureau.)	Total deaths (from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tubercu- losis.		
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
From 25,000 to 50,000 inhabit- ants:											
Alameda, Cal.	26,330	3			1				1		
Auburn, N. Y.	36,509	10	2						1		
Aurora, Ill.	33,022	6	2								
Austin, Tex.	33,218	14	4	2	2				2	2	
Brookline, Mass.	31,138	5	4				1		1		
Butte, Mont.	41,781	5	2				2		4		
Chelsea, Mass.	32,452	12	2		3	1			4		
Chicopee, Mass.	28,057	4	2				1		2		
Danville, Ill.	30,817	9					1			2	
East Orange, N. J.	39,852		5				13				
Elmira, N. Y.	37,816		1						1		
Everett, Mass.	37,381	6	2						2	1	
Everett, Wash.	32,048				2						
Fitchburg, Mass.	40,507	9	4						3	3	
Galveston, Tex.	40,289	13	5						1	1	
Haverhill, Mass.	47,071	16	1		2		3		2	4	
Kalamazoo, Mich.	45,842	14							1	1	
La Crosse, Wis.	31,367	4									
Lancaster, Pa.	49,685		17	1					4	1	
Lexington, Ky.	38,819	13	3							2	
Lynchburg, Va.	31,830	10	3	1						3	
Medford, Mass.	25,240	7	1				2				
Moline, Ill.	26,402	6									
Newcastle, Pa.	39,569		6				1				
Newport, Ky.	31,517	8	5				2				
Newton, Mass.	42,455	8	2		1				1	1	
Niagara Falls, N. Y.	35,127	8	2				1				
Norristown, Pa.	30,235	2			1		1				
Orange, N. J.	31,968	9	4						1		
Pasadena, Cal.	40,880	8	1				3		1	1	
Portsmouth, Va.	37,569	10	2								
Racine, Wis.	44,528	11	1				2				
Roanoke, Va.	40,574	9	19	1							
Sacramento, Cal.	62,717	12	3		15					1	
San Diego, Cal.	48,900		3						2	1	
South Omaha, Nebr.	26,368	5	2								
Superior, Wis.	44,344	8					1				
Taunton, Mass.	35,631	11	5				1				
Waltham, Mass.	29,688	5	2	1						1	
West Hoboken, N. J.	49,647		3						3	1	
Wheeling, W. Va.	42,817	9	11	1	1		3	1	1		
Wilmington, N. C.	27,781	10	2								
York, Pa.	49,430		1						2		
Zanesville, Ohio.	29,949		5	1			1				
Less than 25,000 inhabitants:											
Ann Arbor, Mich.	14,948	10	2				6		5		
Beaver Falls, Pa.	13,100		1								
Braddock, Pa.	20,933		3				3		2		
Cairo, Ill.	15,392	4	3								
Cambridge, Ohio.	12,640	4					5				
Clinton, Mass.	13,075	2									
Coffeyville, Kans.	15,982		1								
Concord, N. H.	22,231	9									
Cumberland, Md.	23,816	8	5				2		3		
Dunkirk, N. Y.	19,607	3					1				
Florence, S. C.									2		
Galesburg, Ill.	23,570	6	1				3				
Grand Haven, Mich.		1									
Harrison, N. J.	16,160	2	2								
Kearny, N. J.	21,967	4	2						2		
Key West, Fla.	21,150	3									
Kokomo, Ind.	19,694	6					2			1	
Marinette, Wis.	14,610	3					5				
Martinsburg, W. Va.	12,032		3								
Melrose, Mass.	16,887	2	1				2				
Morristown, N. J.	13,033	7					1				
Muncie, Ind.	24,969	5	1		1		6		1		
Muscatine, Iowa	17,074	4					1				
Nanticoke, Pa.	21,756	5	2		4						

¹ Carriers, 15.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

City Reports for Week Ended Oct. 17, 1914—Continued.

Cities.	Population as of July 1, 1914. (Esti- mated by United States Census Bureau.)	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tubercu- losis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Less than 25,000 inhabitants— Continued.										
Newburyport, Mass.....	15,147	2	3	1						
New London, Conn.....	20,557	5	4	1						
North Adams, Mass.....	22,019	6	1		2		1		1	
Northampton, Mass.....	19,766	1	1				1		1	
Palmer, Mass.....	8,955	2								
Pascagoula, Miss.....		1								
Plainfield, N. J.....	22,755	3	1							
Rutland, Vt.....	14,417	3	6							
Saratoga Springs, N. Y.....	12,813	5	1	1						
South Bethlehem, Pa.....	22,840	1							3	
Woburn, Mass.....	15,755	8								

IN INSULAR POSSESSIONS.

PHILIPPINE ISLANDS.

Cholera—Manila.

Cholera has been notified at Manila as follows: Week ended September 5, 1914, 22 cases with 11 deaths; week ended September 12, 1914, 42 cases with 14 deaths, with the addition of 10 cases with 4 deaths from delayed reports of previous weeks; week ended September 19, 1914, 39 cases with 20 deaths.

Asst. Surg. Duffy, of the United States Public Health Service, acting chief quarantine officer for the Philippine Islands, reported September 17:

The cholera situation in Manila is not much improved. Owing to the continual rains and flooding of almost the entire city, inspection work has been greatly impeded and preventive measures have been greatly delayed. The low mortality is indicative of a lessened virulency of the organism and it is hoped that it is the beginning of the end of this outbreak. No cases have as yet occurred on the shipping leaving Manila Bay. The total number of cases and deaths from cholera to date is 199 cases with 123 deaths.

Cholera Carriers on River Craft.

The work of the service in connection with the crews of river and bay vessels has been continued. During the week four cholera carriers were found and sent to the cholera-suspect hospital for treatment and the vessels from which they were taken were disinfected.

Cholera in the Provinces.

The cholera situation in the Provinces shows considerable improvement, both in the number of cases which occurred during the week and the number of infected towns and Provinces.

Circular Relative to Examination for Cholera Carriers.

MANILA, P. I., September 22, 1914.

To the owners, agents, and masters of vessels, and others concerned:

SIRS: In accordance with instructions received from the United States Public Health Service at Washington, D. C., it will be necessary hereafter, before bills of health can be issued, to present to this office a certificate for each steerage passenger embarking for Honolulu or the United States to the effect that his stools have been examined and found free from cholera organisms. This also applies to such steerage passengers as are bound for Honolulu and the United States who go first to Hongkong or other oriental ports to embark there.

Respectfully,

B. J. DUFFY,
*Assistant Surgeon, Acting Chief Quarantine Officer
for the Philippine Islands.*

(2987)

FOREIGN REPORTS.

Plague—Manila.

During the week ended September 19, 1914, 1 case of plague with 1 death was notified at Manila.

AUSTRIA-HUNGARY.

Cholera.

Cholera has been notified in Austria-Hungary as follows: Vienna, September 23 to October 3, 1914, 11 cases; Zizkov, a suburb of Prague, September 28, 1914, 1 case, in a soldier returned from Galicia.

CHINA.

Plague—Plague-Infected Rats—Hongkong.

During the two weeks ended September 12, 1914, 5 cases of plague with 5 deaths were notified at Hongkong. During the same period 3,279 rats were examined for plague infection. Six plague-infected rats were found.

Plague-Infected Rats—Shanghai.

During the two weeks ended September 26, 1914, 474 rats were examined at Shanghai. Six plague-infected rats were found.

JAPAN.

Cholera—Cholera Carrier—Karatsu.

Two cases of cholera and one cholera carrier were notified October 2, 1914, at Karatsu, a coaling station 50 miles from Nagasaki.¹

TURKEY.

Plague.

Plague has been notified in Turkey as follows: Bagdad, September 30, 1914, 1 case; Smyrna, October 4, 1914, 1 case.

ZANZIBAR.

Plague—Plague-Infected Rats—Zanzibar.

During the week ended August 31, 1914, 7 cases of plague with 5 deaths were notified at Zanzibar. During the same period 1,421 rats were examined. Ten plague-infected rats were found.

¹ Public Health Reports, Oct. 3, 1914, p. 2730.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.**Reports Received During Week Ended Nov. 6, 1914.**

[From medical officers of the Public Health Service, American consuls, and other sources.]

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Prague				Sept. 26, 1 case in Zizkov, suburb.
Vienna	Sept. 23-Oct. 3	11		
India				Total, Aug. 2-Sept. 5: Cases, 4,351; deaths, 3,203.
Calcutta	Aug. 23-29		6	
Indo-China				June 11-July 31: Cases, 95; deaths, 59.
Baria	July 1-31	18	15	
Dattambang	June 11-July 31	5	5	
Cholon	July 11-31	2	3	
Hanoi	May 1-July 31	2		
Saigon	Jan. 1-July 31	8	5	
Soctrang	May 10-20	3	3	
Soairiang	July 1-31	1	1	
Travinh	Jan. 1-July 31	43	27	
Japan:				
Karatsu	Oct. 2	2		Coaling station 50 miles from Nagasaki, p 2731.
Philippine Islands:				
Manila	Sept. 6-12	52	18	Including 10 cases and 4 deaths not previously reported. First quarter, 1914: Cases, 40; deaths, 27.
Provinces				First quarter, 1914: Cases, 519; deaths, 392.
Turkey in Asia:				
Kamaran	Sept. 29	1		From a vessel.
Turkey in Europe.				Sept. 19, present in Drama, Sandjaks, and villages in vicinity of Kavalla.

YELLOW FEVER.

Brazil:				
Bahia	Sept. 27-Oct. 3	1		

PLAGUE.

Brazil:				
Bahia	Sept. 27-Oct. 3	4	3	
China:				
Hongkong	Aug. 31-Sept. 12	5	5	
Egypt				Total, Jan. 1-Sept. 30: Cases, 206; deaths, 104.
Alexandria	Sept. 23	4		
Ismailia	June 3-9	1	1	
Port Said	Sept. 10-30	11	3	
Provinces—				
Garbieh	Jan. 1-July 24	3	1	Not previously reported.
Mimieh	Jan. 1-July 12	1		Do.
India:				
Calcutta	Aug. 23-29		2	
Indo-China				June 11-July 31: Cases, 216; deaths, 146.
Cholon	Jan. 1-July 31	93	19	
Phanitet	do	394	330	
Phanrang	do	853	489	
Phum Feneh	do	171	152	
Saigon	do	73	41	
Soctrang	May 1-July 31	22	15	Saigon and vicinity, May 10-Aug. 24: Cases, 152; deaths, 59.
Peru:				
Departments				Total, Jan. 1-May 31: Cases, 479; deaths, 235.
Ancachs				Total, Jan. 1-Mar. 31: Cases, 34; deaths, 20.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received During Week Ended Nov. 6, 1914—Continued.****PLAGUE—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
Peru—Continued. Departments—Continued.				
Arequipa.....				Jan. 1-May 31: Cases, 24; deaths, 12.
Callao.....				Jan. 1-Feb. 28: Cases, 4; deaths, 2.
Cahamarca.....				Jan. 31-Apr. 30: Cases, 16; deaths, 7.
Lambayeque.....				Jan. 1-Mar. 31: Cases, 74; deaths, 25.
Libertad.....				Jan. 1-May 31: Cases, 234; deaths, 111.
Lima.....				Jan. 1-May 31: Cases, 56; deaths, 27.
Piura.....				Jan. 1-May 31: Cases, 37; deaths, 21.
Philippine Islands:				
Manila.....				First quarter 1914: Cases, 14; deaths, 10.
Turkey in Asia:				
Bagdad.....	Sept. 30.....	1	1	
Smyrna.....	Oct. 4.....	1		
Zanzibar:				
Zanzibar.....	Aug. 15-21.....	7	5	

SMALLPOX.

Australia:					
New South Wales—					
Sydney.....					Sept. 18-24: Cases, 13 in the metropolitan area, and 6 cases in the country districts.
Brazil:					
Rio de Janeiro.....	Sept. 13-26.....	430	112		
China:					
Shanghai.....	Sept. 21-27.....		2		
Cuba:					
Habana.....	Nov. 2.....		1		
Egypt:					
Alexandria.....	Sept. 24-30.....	3			
Cairo.....	Sept. 17-23.....	1			
France:					
Paris.....	Sept. 13-19.....	2			
India:					
Calcutta.....	Aug. 23-29.....		7		
Norway:					
Trondhjem.....	Sept. 1-30.....	5			
Philippine Islands:					
Samar, province.....					First quarter, 1914, severe outbreak.
Portugal:					
Lisbon.....	Sept. 27-Oct. 3.....	4			
Portuguese East Africa:					
Lourenco Marquez.....	Aug. 1-31.....		1		
Russia:					
St. Petersburg (Petrograd).....	July 19-Sept. 5.....	52	49		
Spain:					
Valencia.....	Sept. 20-Oct. 10.....	13	2		
Turkey in Asia:					
Beirut.....	Sept. 13-26.....	6	3		
Smyrna.....	Sept. 27-Oct. 3.....	8	2		
Turkey in Europe:					
Constantinople.....	Sept. 6-12.....		3		
Saloniki.....	Sept. 20-Oct. 3.....		11		

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 27 to Oct. 30, 1914.

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Hungary.....				Sept. 25, present in 5 localities. Oct. 1-5: Cases, 378. Oct. 24: Present in Carinthia, Carniola, and Moravia Provinces.
Budapest.....	Sept. 26.....	1		
Lower Austria.....				
Vienna.....	Sept. 13.....	1		Oct. 8, still present.
Ceylon:				
Colombo.....	June 14-20.....	1	1	
Uda Pusselawa, district.....	June 7-13.....			Present in Kumbalagamuwu and the neighboring tea estates.
China:				
Amoy.....	Aug. 23-Sept. 12..	1	1	
Kulungsu.....	Aug. 1.....	1		
Hankow.....	July 12-18.....	1		From up-country districts.
Chaochow fu.....	July 4.....			Present.
Canton.....	Jan. 1-Apr. 30.....	4		
Hongkong.....	May 17-23.....	1	1	
Dutch East Indies:				
Celebes.....	July 19-Aug. 1.....	85	85	June 6-13: In Bali and Lombok: Cases, 44; deaths, 23.
Macassar.....	July 12-Aug. 22.....	75	66	
Java—				
Batavia.....	June 28-July 18.....	2	2	Sept. 22, epidemic.
Moluccas—				
Menado.....	June 21-27.....	42	14	
Sumatra—				
Palembang.....	Aug. 2-22.....	42	20	
Greece:				
Piræus.....				October 15: Cases, 1, from Gal- lipoli.
India:				
Bassein.....	Apr. 26-June 29.....	81	65	
Bombay.....	May 17-Sept. 12.....	268	170	
Calcutta.....	May 10-Aug. 22.....		263	
Coconada.....	July 18-Aug. 14.....		18	
Kashmir, Province.....				Endemic. Aug. 18, increasing.
Madras.....	May 31-Sept. 12.....	549	379	Epidemic from Aug. 15.
Moulmain.....	June 7-13.....	1	1	
Nagapatam.....	May 14-Aug. 27.....	30	30	
Rangoon.....	Apr. 1-June 30.....	25	24	Aug. 2-Sept. 5, present.
Indo-China:				Jan. 1-June 10: Cases, 146; deaths, 77. May 21-June 20: Cases, 22.
Battambang.....	June 11-20.....	4		
Cholon.....	July 1-10.....	4		
Saigon.....	June 2-Sept. 12.....	45	20	
Japan:				
Nagasaki.....	Oct. 2.....			Present in vicinity.
Persia:				
Anzali.....	June 15.....	1		
Philippine Islands:				
Manila.....	July 4-Sept. 19.....	188	121	Total July 4-Sept. 19: Cases, 460; deaths, 288.
Provinces:				
Bataan.....				Total Aug. 7: Case, 1; death, 1.
Orani.....	Aug. 7.....	1	1	
Rizal.....				Total July 4-Aug. 27: Cases, 77; deaths, 44.
Malaban.....	July 4-Aug. 27.....	18	7	
Pateros.....	July 7-Aug. 2.....	3		
S. P. Macati.....	July 12-20.....	6	2	
Pasay.....	July 16-Aug. 19.....	6	2	
Pasig.....	July 17-19.....	4	3	
Laspinas.....	July 21.....	1		
Paranaque.....	do.....	1	1	
Navotas.....	July 26-Aug. 27.....	19	19	
Calocan.....	Aug. 1-25.....	6	2	
Jalajala.....	Aug. 17-23.....	13	8	
Bulacan:				Total July 21-Aug. 27: Cases, 241; deaths, 166.
Paombong.....	July 21-Aug. 17.....	21	17	
Calumpit.....	July 21-Aug. 23.....	18	14	
Baliuag.....	July 21.....		1	
Hagonoy.....	July 23-Aug. 27.....	129	77	
Meycauayan.....	July 25.....	5	3	
Polo.....	Aug. 2-25.....	9	9	
Obando.....	Aug. 3-27.....	12	9	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received from June 27 to Oct. 30, 1914—Continued.****CHOLERA—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
Philippine Islands—Continued.				
Provinces—Continued.				
Bulacan—Continued.				
Malolos.....	Aug. 10-27.....	44	34	
Bulacan.....	Aug. 16-22.....	2	2	
Bocaue.....	Aug. 23.....	1		
Cavite.....				Total Aug. 1-7: Cases, 5; deaths, 6.
Cavite.....	July 9-Aug. 7.....	4	5	
Imus.....	Aug. 1.....	1	1	
Iloilo.....				Total July 20: Case, 1.
Iloilo.....	July 20.....	2		
Pampanga.....				Total Aug. 6-27: Cases, 37; deaths, 19.
Minalin.....	Aug. 6-7.....	2	2	
Masantol.....	Aug. 7-25.....	27	15	
Macabebe.....	Aug. 8-27.....	7	1	
Apalit.....	Aug. 10.....	1	1	
Pangasinan.....				Total Aug. 23: Cases, 4; deaths, 3.
Binalonan.....	Aug. 23.....	4	3	
Tayabas.....				Total Aug. 3: Cases, 2.
Lucban.....	Aug. 3.....	2		
Russia:				
Podolia.....				
Bratzlaw.....	July 26-Aug. 2.....	1		July 19-Aug. 2: Cases, 254; deaths, 85.
Jampol.....	July 19-Aug. 2.....	25	8	
Letichev.....	July 10.....	2	2	
Litine.....	July 26-Aug. 8.....	8	3	
Vinnitza.....	July 19-Aug. 2.....	220	74	
Warsaw.....				Aug. 30, present.
Siam:				
Bangkok.....	Apr. 19-July 11.....		277	
Straits Settlements:				
Singapore.....	May 10-Aug. 19.....	147	119	
Turkey in Asia:				
Egredi, Konieh.....	July 19.....		1	
Eski-Cheri.....	July 23-24.....	2	1	
Tagadima.....	July 29.....	2		
Turkey in Europe:				
Adrianople.....	May 14-19.....		2	
Constantinople.....	July 15.....	1		
Surgun, Tschadadza.....	July 22.....	1		Village.
Viza.....	do.....	1		

YELLOW FEVER.

Brazil:				
Bahia.....	May 10-Sept. 19.....	20	17	
Pernambuco.....	May 1-15.....		1	
Ecuador:				
Guayaquil.....	May 1-31.....	3	1	
Do.....	Aug. 1-31.....	4	2	
Mexico:				
Merida.....	Sept. 14.....	1		
Progreso.....	Oct. 8.....	1		
Venezuela:				
Caracas.....	June 1-30.....	1	1	
La Guayra.....	Aug. 16-31.....	1	1	
Maracaibo.....	June 15.....			Present in light form. No cases since.

PLAGUE.

Brazil:				
Bahia.....	May 17-Sept. 26.....	27	19	
Pernambuco.....	May 1-Aug. 15.....		5	
Rio de Janeiro.....				Oct. 3, 1 fatal case.
British East Africa:				
Mombasa.....	June 1-July 31.....		2	
Ceylon:				
Colombo.....	May 19-Sept. 12.....	141	130	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 27 to Oct. 30, 1914—Continued.

PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
China.....				Jan. 1-Apr. 30, present in Hokschan, Shuotak, Tangsching, and Tungkun. Apr. 3-17, present in Kan-lai and San-hu, 20 miles distant from Pakhoi, June 6, still present in vicinity of Swatow. June 20, improving in the Chaochow and Punning districts.
Amoy.....	June 20-July 18.....			Present: July 13, present in inland villages. Aug. 10, diminishing.
Kulangsu.....	May 20.....	1		
Canton.....	Jan. 1-June 11.....	1,156		
Chinchew.....	May 30-June 6.....			Present 30 miles north from Amoy.
Faishan.....	May 13.....			Present.
Hongkong.....	May 19-Aug. 29.....	921	759	Total, Jan. 4-Sept. 12: Cases, 2,150; deaths, 1,402.
Pakhoi.....	June 18.....	2		From a vessel from Hongkong. Apr. 3-June 18: Cases, 100. In Kan-lai and San-hu, 20 miles distant.
Cuba.....				Total, Mar. 5-Sept. 17: Cases, 43; deaths, 10.
El Aceite (near El Caney).....	July 27-Aug. 2.....	4		Including 2 cases previously reported from vicinity of El Caney; all removed to and previously reported as from Santiago.
Santiago.....				June 30-Sept. 23: Cases, 12 (case Sept. 17 from El Caney); deaths, 4. One of these deaths was a case from El Aceite.
Dutch East Indies: Provinces.....				Total, Apr. 1-July 31: Cases, 4,680; deaths, 4,519.
Kediri.....	Apr. 1-July 31.....	1,054	1,014	
Madison.....	do.....	413	348	
Paseroocan.....	do.....	3,358	2,930	
Surabaya.....	do.....	255	229	
Ecuador: Guayaquil.....	May 1-Aug. 31.....	15	8	
Egypt.....				Total Jan. 1-Aug. 16: Cases, 184; deaths, 95.
Alexandria.....	June 2-Sept. 22.....	34	20	
Damietta.....	July 17.....	1		
Port Said.....	June 9-Sept. 9.....	23	9	
Provinces—				
Assiout.....	May 25-June 20.....	5	1	
Charkieh.....	July 13.....	1	1	
Fayoum.....	May 27-Aug. 13.....	8	2	
Garbieh.....	July 21.....	1		
Gizeh.....	May 27-June 24.....	6	3	
Menouf.....	June 17.....	1		
Minieh.....	May 23-July 12.....	10	5	
German East Africa:				
Dar-es-Salaam.....	May 2-June 10.....	7	3	
Muanza.....	Feb. 21-Mar. 18.....	7	5	
Great Britain:				
Liverpool.....	Aug. 8-12.....	9	3	
Greece:				
Piræus.....	Aug. 7-Sept. 9.....	16	2	Sept. 30, ended.
Syria, island.....	Sept. 3-4.....	1	1	
Hawaii:				
Panahau.....	Aug. 17.....	1	1	
India.....				Total Apr. 27-Aug. 1: Cases, 47,605; deaths, 41,811.
Bassein.....	Apr. 26-Aug. 8.....	34	34	
Bombay.....	May 17-Sept. 12.....	604	505	
Calcutta.....	May 10-Aug. 22.....		160	
Karachi.....	May 24-July 18.....	28	27	
Maulmine.....	Apr. 26-July 25.....	98	95	
Rangoon.....	Apr. 1-July 31.....	754	646	
Indo-China.....				Sept. 5; still present.
Cholon.....	Jan. 1-July 20.....	81		Total, Jan. 1-June 16: Cases, 1,414; deaths, 1,146. June 11-July 20: Cases, 132.
Phanitet.....	Jan. 1-July 10.....	389		
Phanrang.....	do.....	852		
Phum Penh.....	do.....	24		
Saigon.....	May 19-Sept. 7.....	175	72	
Soctrang.....	May 1-July 10.....	22		

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 27 to Oct. 30, 1914—Continued.

PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Italy:				
Catania.....				Since Sept. 1, 1914, there have been 17 officially reported cases and unauthenticated rumors of others.
Japan.....				Total Jan. 1-Aug. 31: Cases, 81; deaths, 66.
Hodogaya.....	June 9-July 3.....	3		Near Yokohama.
O-No district.....	June 9-15.....	1		
Taiwan (Formosa)—				
Kagi.....	May 3-Aug. 8.....	303	273	
Taihoku.....	Aug. 16-22.....		2	
Tokyo.....	June 22-Aug. 8.....	14	4	Total Apr. 18-July 25: Cases, 45.
Yokohama.....	July 5-Aug. 15.....	4	4	And vicinity. Total, May 23-Aug. 15: Cases, 23; deaths, 19.
Mauritius.....	Apr. 17-23.....	2		
Peru:				
Ancachs.....				No reports of deaths received.
Casma.....				Total, Feb. 9-Mar. 22: Cases, 4, including 2 cases, p. 1319, pt. 1.
Chimbote.....	Mar. 23-May 2.....			Present.
Quarhuay (Huaylas).....	do.....			Do.
Samanea.....	do.....			Do.
Arequipa—				
Mollendo.....	Mar. 23-Aug. 2.....	15		
Cahamarca—				
Contumaza.....	Mar. 23-May 2.....	3		
Lambayeque—				
Chiclayo.....	do.....	3		
Guadalupe.....	do.....	1		
Libertad—				
Duacamarca (Otuzco).....	Mar. 23-May 30.....			Present.
Moche.....	July 9-Aug. 2.....	2		
Pichipampa (Otuzco).....	Mar. 24-30.....	4		
Salavarry.....	Mar. 23-May 2.....	1		
San Pedro.....	do.....	8		From Pacasmayo.
Trujillo.....	Mar. 23-Aug. 2.....	21		
Lima—				
Callao.....	Oct. 8.....			Present.
Unigambal (Santiago de Chuco).....	Mar. 23-June 7.....	16		
Lima.....	Mar. 23-Aug. 2.....	20		
Surco (Matucana).....	do.....	11		
Piura—				
Catacaos.....	do.....	4		
La Huaca.....	June 8-July 5.....	1		
Piura.....	Mar. 23-July 5.....	12		
Philippine Islands:				
Manila.....	May 17-Sept. 19.....	8	8	May 17, 1 case from s. s. Talsang from Amoy; May 23, 1 case from s. s. Linan from Amoy; June 12-20, a fatal case from s. s. Linan from Amoy; June 17, a fatal case in the Philippine General Hospital.
Cebu.....				May 20, 1 case on s. s. Rubi from Hongkong.
Portugal:				
Lisbon.....	Oct. 8-9.....	8		Pneumonic form.
Russia:				
Astrakhan Government.....				Total, May 25-July 15: Cases, 49; deaths, 46.
Kirghis steppe—				
Betas-Tschagal.....	May 25-July 15.....	2		
Bulanal.....	May 25-June 14.....	10	10	7 of these cases pneumonic.
Manysch-Tschagal.....	do.....	5		
Kalmuck steppe—				
Archanskoge-Tebe.....	do.....	4		
Gubia.....	do.....	4		
Schitkur.....	do.....	1		
Senegal:				
Dakar.....	May 15.....	12		May 17-23, 5 deaths daily among natives.
Siam:				
Bangkok.....	Apr. 19-Aug. 8.....		15	
Straits Settlements:				
Singapore.....	May 10-16.....	2	2	
Tripoli.....				July 15, present in Azizia, Tarhuna, and Zanzur, vicinity of Tunis.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 27 to Oct. 30, 1914—Continued.

PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Turkey in Asia:				
Adalia.....	July 19-Aug. 1....	2	.....
Basra.....	June 24-July 19....	16	8	
Beirut.....	June 16-Aug. 23....	5	.....
Chios.....	Aug. 2.....	.....	.....	Epidemic.
Haifa.....	Aug. 29.....	1	1	
Jaffa.....	June 5-27.....	4	3	
Kut.....	July 6.....	.....	1	From a steamboat from Bagdad to Basra.
Mitylene.....	Aug. 2.....	.....	.....	Present.
Samos.....	.....do.....	.....	.....	Epidemic.
Smyrna.....	July 2-Sept. 9....	8	4	
Turkey in Europe:				
Saloniki.....	Sept. 15.....	3	.....
Union of South Africa:				
Cape Town.....	Sept. 24.....	.....	.....	"Few cases plague, outlying districts reported localized."
Zanzibar:				
Zanzibar.....	July 1-Aug. 21....	9	6	

SMALLPOX.

Algeria:				
Departments—				
Algiers.....	Mar. 31-May 31....	7	.....
Constantine.....	.....do.....	7	.....
Oran.....	.....do.....	57	.....
Arabia:				
Aden.....	June 10-Aug. 16....	.....	2	
Argentina:				
Buenos Aires.....	June 1-30.....	.....	1	
Australia:				
New South Wales—				
Sydney.....	.....	.....	.....	Total May 8-Sept. 17: Cases, 257 in the metropolitan area and 82 cases in the country districts.
Western Australia—				
Bunbury quarantine station.	May 5-June 12....	8	1	From s. s. Kilchattan, from Bombay, including previous report.
Austria-Hungary:				
Galicia.....	May 17-July 25....	12	.....
Lower Austria.....	May 31-June 20....	2	.....
Styria.....	July 5-11.....	2	.....
Upper Austria.....	May 17-July 11....	4	.....
Belgium:				
Liege.....	June 1-6.....	.....	3	
Brazil:				
Bahia.....	June 1-Aug. 8.....	14	.....
Para.....	May 24-30.....	.....	1	
Pernambuco.....	May 1-Aug. 15....	.....	41	
Rio de Janeiro.....	May 10-Sept. 2....	2,515	456	
Canada:				
British Columbia—				
Vancouver.....	Aug. 18-Sept. 5....	4	.....
Manitoba.....				
Winnipeg.....	June 14-Oct. 10....	12	.....
Ontario.....				
Hamilton.....	Aug. 1-Sept. 30....	6	.....
Niagara Falls.....	July 15-21.....	1	.....
Ottawa.....	July 26-Aug. 1....	1	.....
Prince Edward Island—				
Charlottetown.....	July 16-22.....	1	.....
Quebec.....	July 11-Oct. 10....	5	.....
Canary Islands:				
Teneriffe—				
Santa Cruz.....	June 28-Sept. 26....	.....	22	
Ceylon:				
Colombo.....	May 19-Sept. 12....	40	11	
Uva district—				
Passara.....	June 7-13.....	39	11	Among coolies from India.
China:				
Amoy.....	May 17-June 13....	.....	.....	May 16-23, present in Kaying and increasing in Choa Chow.
Canton.....	Jan. 1-Apr. 30....	21	.....	Present.
Chungking.....	May 23.....	.....	.....	Endemic.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

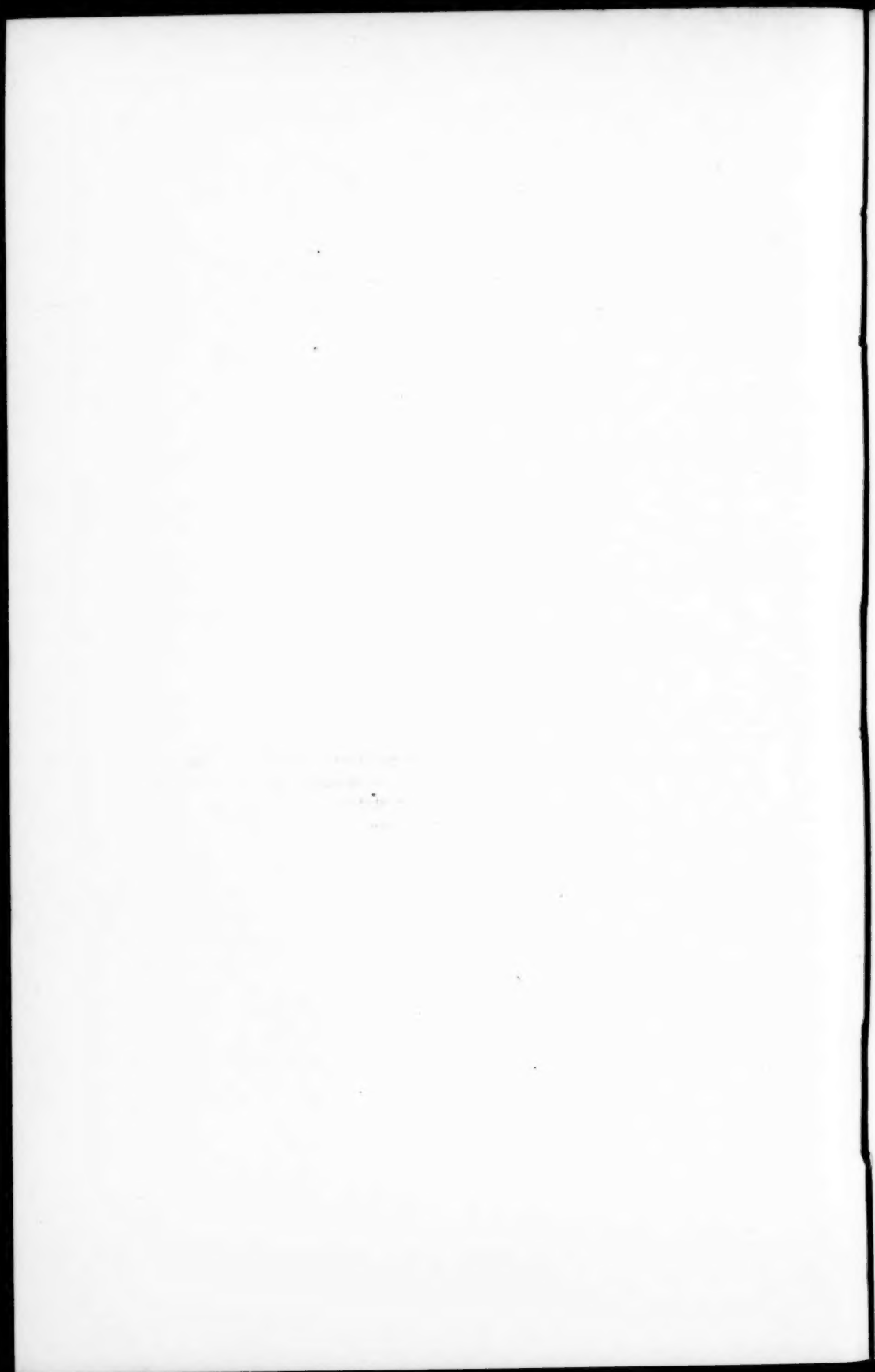
Reports Received from June 27 to Oct. 30, 1914—Continued.

SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.	
China—Continued.					
Dairen.....	June 7-July 4.....	2	Total Jan. 4-Aug. 31: Cases, 99; deaths, 70. Always prevalent. Do. Present, and in San-hu, 20 miles distant. Deaths among natives.	
Hongkong.....	May 10-July 18.....	15	12		
Nanking.....	May 23.....	.....	.....
Newchwang.....	June 13-Sept. 7.....	.....	.....
Pakhoi.....	Apr. 17.....	.....	.....
Shanghai.....	May 18-Sept. 20.....	12	19	In the western part. Aug. 22, present in Pontianak. In the western part. May 3-Aug. 8: Cases, 1,697; deaths, 379, including Batavia.	
Tientsin.....	June 6.....	1	.....	
Tsingtau.....	May 16-July 5.....	21	3		
Dutch East Indies:					
Borneo.....	May 17-Aug. 22.....	601	131		
Java.....					
Batavia.....	May 3-Aug. 8.....	129	40	May 31-Aug. 22: Cases, 10.	
Tegal.....	Aug. 2-8.....	19	6		
Egypt:					
Alexandria.....	June 6-Sept. 9.....	8	13		
Cairo.....	May 21-Sept. 15.....	201	16		
Port Said.....	May 21-June 6.....	4	Total Jan. 1-Aug. 31: Cases, 422; deaths, 97; exclusive of Taiwan.	
France:					
Bordeaux.....	June 7-July 11.....	.....	4	
Marseille.....	May 1-31.....	.....	2	
Paris.....	May 24-Sept. 12.....	12	2		
Germany.....				June 22 and Aug. 8, present. Decreased.	
Hamburg.....	June 7-27.....	5	.....	
Kehl.....	May 1-31.....	.....	1	
Gibraltar.....	June 8-27.....	1	1		
Great Britain:					
Leeds.....	June 6-July 18.....	4	June 22 and Aug. 8, present. Decreased.	
Southampton.....	June 29-July 4.....	1	.....	
Greece:					
Athens.....	July 6-12.....	.....	1	
Patras.....	Sept. 2-29.....	3	3		
India:				June 22 and Aug. 8, present. Decreased.	
Bombay.....	May 19-Sept. 12.....	15	54		
Calcutta.....	May 16-Aug. 22.....	.....	12	
Karachi.....	May 23-July 25.....	13	4		
Madras.....	May 17-Sept. 12.....	32	4		
Rangoon.....	Apr. 1-July 31.....	10	1	June 22 and Aug. 8, present. Decreased.	
Indo-China:					
Saigon.....	May 12-18.....	2	.....	
Italy:					
Turin.....	July 20-26.....	2	.....	
Japan:				June 22 and Aug. 8, present. Decreased.	
Kobe.....	June 19-23.....	1	.....	
Nagasaki.....	May 18-Aug. 30.....	18	18		
Taiwan (Formosa).....	May 3-Aug. 8.....	15	6		
Yokohama.....	June 23-29.....	1	.....	
Honduras:				June 22 and Aug. 8, present. Decreased.	
Puerto Cortez.....	Sept. 1-30.....	.....	6	
Mexico:					
Chihuahua.....	May 18-Oct. 11.....	.....	63	
Juarez.....	Aug. 1.....	2	.....	
Mazatlan.....	June 17-Sept. 1.....	4	June 22 and Aug. 8, present. Decreased.	
Mexico.....	Jan. 17-Feb. 21.....	19	16		
Monterey.....	June 30-Sept. 20.....	.....	9	
Tampico.....	May 11-July 31.....	.....	10	
Vera Cruz.....	June 1-Sept. 5.....	16	6		
Norway:				June 22 and Aug. 8, present. Decreased.	
Trondhjem.....	June 1-Aug. 31.....	14	.....	
Peru:					
Callao.....	.....	.....	.....
Lima.....	June 22.....	.....	.....
Portugal:				June 22 and Aug. 8, present. Decreased.	
Lisbon.....	June 14-Sept. 26.....	13	.....	
Russia:					
Batum.....	Feb. 1-Apr. 30.....	7	.....	
Moscow.....	May 10-Sept. 5.....	45	8		
Odessa.....	May 10-Aug. 4.....	6	June 22 and Aug. 8, present. Decreased.	
Riga.....	May 31-July 25.....	14	.....	
St. Petersburg (Petrograd).....	May 24-July 11.....	84	28		
Vladivostok.....	Apr. 22-May 13.....	8	1		
Warsaw.....	Feb. 1-May 2.....	146	61		
Serbia:				June 22 and Aug. 8, present. Decreased.	
Belgrade.....	May 25-July 19.....	12	2		
Siam:					
Bangkok.....	June 13-Aug. 8.....	.....	6	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received from June 27 to Oct. 30, 1914—Continued.****SMALLPOX—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
Spain:				
Almeria.....	July 1-31.....	.....	1	
Barcelona.....	June 14-July 31.....	.....	18	
Cadiz.....	May 1-31.....	.....	5	
Madrid.....	June 1-Aug. 31.....	.....	6	
Valencia.....	June 7-Sept. 19.....	50	13	
Switzerland:				
Cantons—				
Basel.....	May 31-Sept. 19.....	14	.....
Geneva.....	July 5-11.....	1	.....
Grisons.....	June 7-13.....	1	.....
Zurich.....	July 19-Aug. 8.....	2	.....
Turkey in Asia:				
Beirut.....	June 1-Sept. 12.....	71	20	
Damascus.....	Mar. 15-Aug. 20.....	105	400	
Jerusalem.....	May 3-July 25.....	33	2	
Mersina.....	Aug. 2-8.....	2	.....
Smyrna.....	May 13-June 13.....	.....	5	
Trebizond.....	May 19-Sept. 5.....	.....	.....	Present.
Turkey in Europe:				
Constantinople.....	June 14-Sept. 8.....	.....	6	
Saloniki.....	May 31-Sept. 5.....	.....	13	June 6: Present in a mild form among 20,000 refugees from Asiatic Turkey, Chio, and Mitylene, Sept. 19; cases, 2
Union of South Africa:				
Pretoria.....	May 9-23.....	1	.....



SANITARY LEGISLATION.

COURT DECISIONS.

MICHIGAN SUPREME COURT.

Occupational Diseases—Not Included Under the Michigan Workmen's Compensation Act.

ADAMS v. ACME WHITE LEAD & COLOR WORKS, 148 N. W. Rep., 485. July 25, 1914.

Construing the Michigan workmen's compensation act the court held that it was not the intention of the legislature to provide compensation for industrial or occupational diseases, but for injuries arising from accidents alone.

STONE, J.: The questions involved in this case are raised on certiorari to the industrial accident board. On December 18, 1912, Augustus Adams, a resident of Sandwich, Ontario, began work at the plant of the Acme White Lead & Color Works in the city of Detroit. His duties were those of a sifter or bolter tender in the red-lead plant. His work brought him in contact with the lead. On May 29, 1913, he left his work at quitting time, but that evening became so ill that he was unable to return to work again. He died on June 27, 1913. There is no doubt that the cause of his death was lead poisoning, contracted industrially, i. e., "was an occupational disease," as the return of the industrial accident board shows. The return states:

That during said period between December 18, 1912, and June 27, 1913, one Augustus Adams was in the employ of the Acme White Lead & Color Works; * * * and that during said period, while in the course of said employment, he contracted an occupational disease, to wit, red lead poisoning, upon the premises of the said company, and that on June 27, 1913, he died as a result of said disease.

The claim of the widow, under act No. 10 of the public acts of the special session of 1912, was duly presented to a committee of arbitration and allowed. Thereafter, in accordance with the provisions of said act, the respondent filed with the said board a claim for review of the decision of said committee on arbitration, and later, after a full hearing, the said board made and entered an opinion and order denying the contention of the respondent and affirming the award of said arbitration committee. The opinion of the said board, upon which its order was based, so fully presents the questions involved that we can not do better than to quote therefrom. After referring to the facts above set forth, it is said:

These facts are undisputed, and the sole question in the case is whether the workmen's compensation act covers the case of death by lead poisoning arising out of and in the course of the employment. It is contended on behalf of respondent as follows: (1) That lead poisoning is not an accident; (2) that act No. 10, public acts of 1912, was not intended to provide compensation for diseases, but only accidents; (3) if the act does apply to industrial diseases, it is so far unconstitutional.

It seems to be established under the English cases that lead poisoning is not an accident. It is an occupational disease. It seems to follow from this that unless the

Michigan workmen's compensation law is broad enough to include and cover occupational diseases, the applicant's claim in this case must be denied. The controlling provision of the act on this point is found in section 1 of part 2, and is as follows: "If an employee * * * receives a personal injury arising out of and in the course of his employment," he shall be paid compensation, etc. It will be noted that the above language does not limit the right of compensation to such persons as receive personal injuries by accident. The language in this respect is broader than the English act, and clearly includes all personal injuries arising out of and in the course of the employment, whether the same are caused "by accident" or otherwise. It is equally plain that lead poisoning in this case, in fact, constitutes a personal injury, and that such personal injury was of serious and deadly character. The board is therefore of the opinion that the section of the Michigan act is broad enough to cover cases of lead poisoning, especially the one in question.

The board also reached the conclusion that it would not be justified in holding the part of the act referred to invalid on constitutional grounds.

By the assignments of error, it is claimed that the board erred: First, in construing the said act so as to provide for the awarding of compensation for an occupational disease, specifically red-lead poisoning; second, in overruling appellant's contention that, if in said act the legislature intended to provide compensation for an occupational disease, particularly red-lead poisoning, said act, in so far as it does so provide, is unconstitutional.

1. Does the Michigan act include and cover occupational diseases? This is a fair question, and should be fairly answered. What is an "occupation" or "occupational disease"? The Century Dictionary and Cyclopedia defines an "occupational disease" as "a disease arising from causes incident to the patient's occupation, as lead poisoning among painters." In the instant case the undisputed medical evidence shows that lead poisoning does not arise suddenly, but comes only after long exposure. "It is a matter of weeks or months or years." It is brought about by inhalation, or by the lead coming into the system with food through the alimentary canal, or by absorption through the skin. In any case it is not the result of one contact or a single event. "In occupational diseases it is drop by drop, it is little by little, day after day for weeks and months, and finally enough is accumulated to produce symptoms." It also appears that lead poisoning is always prevalent in the industries in which lead is used, and a certain percentage of the workmen exposed to it become afflicted with the disease. Elaborate precautions are taken against it in the way of instructions to the men, masks to protect the respiratory organs, etc. Whether the workman will contract it or not will depend upon the physical condition, care, and peculiarity of the individual; and the amount of time it will take to produce ill effects or death also varies.

An "accident" is defined in Black's Law Dictionary as follows:

Accident. An unforeseen event, occurring without the will or design of the person whose mere act causes it; an unexpected, unusual, or undesigned occurrence; the effect of an unknown cause, or, the cause being known, an unprecedented consequence of it; a casualty.

It might be well to keep in mind the conditions sought to be remedied by the diverse workmen's compensation enactments which have been adopted by several of the States of the Union and in foreign countries. The paramount object has been for the enactment of what has been claimed to be more just and humane laws to take the place of the common-law remedy for the compensation of workmen for accidental injuries received in the course of their employment, by the taking away and removal of certain defenses in that class of cases.

In this our own act is not an exception. It first provides that in any action to recover damages for personal injury sustained by an employee in the course of his employment, or for death resulting from personal injuries so sustained, it shall not be a defense: (a) That the employee was negligent unless and ex-

cept it shall appear that such negligence was willful; (b) that the injury was caused by the negligence of a fellow employee; (c) that the employee had assumed the risks inherent in or incidental to or arising out of his employment, or arising from the failure of the employer to provide and maintain safe premises and suitable appliances.

It is then enacted that the above provisions shall not apply to actions to recover damages for the death of or for personal injuries sustained by employees of any employer who has elected, with the approval of the industrial accident board thereafter created, to pay compensation in the manner and to the extent thereafter provided. Manifestly the terms "personal injury" and "personal injuries," above mentioned, refer to common-law conditions and liabilities, and do not refer to and include occupational diseases, because an employee had no right of action for injury or death due to occupational diseases at common law, but, generally speaking, only accidents, or, rather, accidental injuries, gave a right of action. We are not able to find a single case where an employee has recovered compensation for an occupational disease at common law. Certainly it can be said that in this State no employer has ever been held liable to the employee for injury from an occupational disease, but only for injuries caused by negligence. It seems to us that the whole scheme of this act negatives any liability of the employer for injury resulting from an occupational disease. The title of the act is significant:

An act to promote the welfare of the people of this State, relating to the liability of employers for injuries or death sustained by their employees, providing compensation for the accidental injury to, or death of employees, and methods for the payment of the same, establishing an industrial accident board, defining its powers, providing for a review of its awards, making an appropriation to carry out the provisions of this act, and restricting the right to compensation or damages in such cases to such as are provided by this act.

The first provision defining the employers who are subject to the act is found in section 5, subdivision 2, of part 1. It reads:

Every person, firm, and private corporation, including any service corporation, who has any person in service under any contract of hire, express or implied, oral or written, and who, at or prior to the time of the accident to the employee for which compensation under this act may be claimed, shall in the manner provided in the next section have elected to become subject to the provisions of this act, and who shall not, prior to such accident, have effected a withdrawal of such election in the manner provided in the next section.

While not controlling, it is pertinent to note the history of the Michigan act.

By act No. 245, Public Acts of 1911, the legislature created a commission—to make the necessary investigation and to prepare and submit a report, setting forth a comprehensive plan and recommending legislative action, providing compensation for accidental injuries or death of workmen arising out of and in the course of employment.

Section 2 of the act reads:

It shall be the duty of the commission of inquiry to fully investigate the conditions affecting and the problems involved in the matter of compensation for accidental injuries or death of workmen arising out of and in the course of employments.

The act drawn pursuant to this authority was passed by the legislature without change. While it can not be claimed that the power of the legislature was limited to enacting the bill prepared by the commission, yet when that body passed the bill without change it may be said that it adopted the meaning that must have been intended by the commission.

It is the claim of appellant that lead poisoning contracted industrially is not an accident; that such poisoning, being something that is contracted by a fairly certain percentage of those working in industries where lead is used, can not be considered as unexpected; that it comes as a gradual, slow process, and

hence is not an "accident." The appellee, not agreeing with the reasoning of the board, contends that the act does cover injuries occasioned by lead poisoning, and that such poisoning contracted in the course of employment is an "accidental injury."

The English act of 1897 was entitled:

An act to amend the law with respect to compensation to workmen for accidental injuries suffered in the course of their employment.

The body of the act provided that—

If in any employment, to which this act applies, personal injury by accident arising out of and in the course of employment, is caused to any workman his employer shall be liable.

It was not long before it was necessary to determine what was personal injury by accident, and to give a definition of "accident." In *Hensey v. White* (1900), 1 Q. B. 481, the language of an earlier case was approved where it was said:

I think the idea of something fortuitous and unexpected is involved in both words "peril" or "accident."

In *Walker v. Lilleshall Coal Co.* (1900), 1 Q. B. 488, it was said:

The word "accident" is used in the ordinary and popular sense of the word as denoting unlooked-for mishaps or an untoward event which is not expected nor designed.

Finally, in *Steel v. Cammell Laird Co. (Ltd.)* (1905), 2 K. B. 232, the precise point was decided. The applicant, a caulker in the employment of shipbuilders, was seized with paralysis, caused by lead poisoning, and became totally incapacitated for work. In the course of his work, in which he had been employed by the shipbuilders for a period of two years before he became incapacitated, he had to smear either with red or white lead certain places between the plates of ships into which water-tight shoes were put. The poisoning was such as might be expected from the nature of the work. It might be caused either by inhalation, or by eating food without having removed the lead from the hands, or by absorption through the skin. Only a small proportion of cases of poisoning of this description occurred amongst a number of persons working with red or white lead. The poisoning could not be traced to any particular day, and its development was a gradual process and generally took considerable time. Held, that the lead poisoning could not be described as an "accident," in the popular and ordinary use of that word, so as to entitle the applicant to compensation for personal injury by accident arising out of and in the course of his employment, within the meaning of section 1 of the workmen's compensation act of 1897. (*Fenton v. Thorley & Co.*, 72 L. J. K. B. 787, and *Brinton's Lim. v. Turvey*, 74 L. J. K. B. 474, considered.)

The court in the above case reasoned that under the act a date must be fixed as that on which the injury by accident occurred, and it was said:

It has been suggested that there was a series of accidents by the continuous absorption of lead by one or other of the three processes named; but this suggestion does not meet the difficulty which arises from the provisions of the act as to notice of the particular date of the accident or injury.

Others of the judges said that the injury was not unexpected; that it was certain that somebody would suffer, and this man turned out to be susceptible to the poison. As a result of this case, it was found necessary to change the act, if cases like this were to be included; so in 1906, less than a year later, the act of 6 Edw. VIII, c. 58, was passed, entitled:

An act to amend the law with respect to compensation to workmen for injuries suffered in the course of their employment.

The body of the act again provides compensation for "personal injury by accident," but it also (section 8) provides that:

Where the disease is due to the nature of the employment * * * he or his dependents shall be entitled to compensation under this act as if the disease * * * were a personal injury by accident, arising out of and in the course of employment if it be one of the diseases contained in schedule 3 of the act.

In that schedule "lead poisoning" and its sequela are therein scheduled. Of this act the Encyclopedia of Laws of England, volume 5, page 227, states:

The extension of this act of the principle of workmen's compensation or industrial diseases is a new departure. Disease, if contracted industrially, is not an accident in the ordinary acceptance of the terms.

It was also said of the act that a new phase in workmen's compensation—compensation for disease arising out of employment—was a new feature in this type of legislation. The language of the act should be particularly noted. It does not attempt to declare an industrial disease an "accident," but gives compensation therefor "as if the disease * * * were a personal injury by accident."

Considering the condition to be remedied and the history of the Michigan act, and comparing it with the English act of 1897, we are not able to agree with the accident board when it says, referring to the language which it quotes, that our act is broader than the English act, and clearly includes all personal injuries arising out of and in the course of an employment, whether the same are caused by "accident" or otherwise. In the language quoted by the board it is true that the words "personal injury" are used, but in determining the nature of the personal injury intended to be covered by the act, the whole act, with its title, should be examined and considered; and, so examined, we think it should be held that the words "personal injury," as quoted by the board, "refer to the kind of injury included in the title and other portions of the act, which plainly refer to 'accidental injury to and death of employees.'" The whole scope and purpose of the statute, in our judgment, was to provide compensation for "accidental injuries," as distinguished from "occupational diseases." We must hold, therefore, that the provisions of the act of this State are very similar to the early English act above referred to.

We have shown how the English act was subsequently amended by adding the provision permitting the recovery of compensation for certain scheduled diseases caused by, or especially incident to, particular employments—diseases known as occupational or industrial diseases. Not before, but since, the passage of this amendment to the English act, the English courts have sustained the rights of recovery in such cases as are here presented. The framers of our act either did not know of the amendment to the English act, or else they did not intend to permit the recovery of compensation in such cases. If it is said that it is just as important to protect employees against such conditions as are here presented as it is to protect them against injuries arising from what are strictly termed "accidents," our answer is that that is a matter which should be addressed to the legislature. In the absence of a provision in the statute meeting this situation the court is unable to award a recovery.

Counsel for appellee have referred to some of the English cases where compensation was allowed for injuries caused by poisoning, but an examination of those cases will show that the injuries were purely accidental. *Higgins v. Campbell* (1 K. B., 328; affirmed A. C., 230) is a fair illustration of those cases. There a workman employed in a wool-combing factory in which there was wool which had been taken from sheep infected with anthrax, contracted that disease by contact with the anthrax bacillus which was present in the wool. In that case compensation was allowed, and it was held that the work-

man was injured by accident arising out of and in the course of his employment, within the meaning of the English act of 1897. The court treated the disease as caused by an accident, by one particular germ striking the eyeball. It was considered that the accidental alighting of the bacillus from the infected wool on the eyeball caused the injury. It was treated as if a spark from an anvil hit the eye. This may be seen from the statement of Lord Macnaghten:

It was an accident that the thing struck the man on a delicate and tender spot in the corner of his eye.

We think that this and kindred cases can be readily distinguished from the lead-poisoning cases.

The same difficulty about giving notice of the accident or injury noted in the English act applies to the Michigan act. Every employer is required to keep a record of all injuries, fatal or otherwise, received by employees in the course of their employment. Section 17 of part 3 of our statute provides that:

Within 10 days after the occurrence of the accident resulting in personal injury a report thereof shall be made in writing to the industrial accident board on blanks to be procured from the board for that purpose.

And a penalty is prescribed for neglect to make such report.

In the instant case Adams left his place of employment at the usual quitting time on May 29, 1913. He did not return. What knowledge his employer had of his sickness does not appear. It is not apparent what notice could be given under our statute in such a case. If our statute in its present form should be held to apply to occupational or industrial diseases, then compensation might be claimed of an employer where the term of employment had been for a brief period, whereas the disease may have been contracted while in the employment of a former employer. All this is provided for in the amendment of 1906 in the English act, where provision is made for investigation and apportionment among employers for whom the employee worked during the previous year "in the employment to the nature of which the disease was due." There is no such machinery or procedure provided for in our statute.

We are not unmindful of the holdings of the Supreme Court of Massachusetts in *re Hurle* (217 Mass., 223, 104 N. E., 336) and *Johnson v. London Guarantee & Accident Co.* (104 N. E., 735). In the latter case that court held that the personal injury of a lead grinder, sickness incapacitating him from work resulting from the accumulated effect of gradual absorption of lead into his system, arose "out of and in the course of his employment" within the workmen's compensation act (St. 1911, c. 751) of that State. That case is founded upon *In re Hurle*, supra, which was a case of blindness incurred from an acute attack of optic neuritis, induced by the poisonous coal-tar gases escaping from a furnace about which he was required to work. The matter of accidental injury was not discussed by the court. The court said:

The question to be decided is whether this was a "personal injury arising out of and in the course of his employment" within the meaning of those words in the statute.

The court further, in referring to the comments of counsel for the employer that the act could not apply to such an injury as that sustained, said:

It might be decisive if "accident" had been the statutory word. It is true that in interpreting a statute words should be construed in their ordinary sense. "Injury," however, is usually employed as an inclusive word. The fact remains that the word "injury," and not "accident," was employed by the legislature throughout this act.

As "accident" is the controlling word in our act we do not think that the Massachusetts decisions should be held to apply here, as the construction of that act has little, if any, bearing on the Michigan act.

Our attention has been called to the Massachusetts act, which differs in many respects from our act. That act is entitled:

An act relative to payments to employees for personal injuries received in the course of their employment, and to the prevention of such injuries.

The whole scope of the act seems to be to provide for compensation for personal injuries received in the course of employment. In many instances where the word "accident" occurs in our statute the word "injury" is used in the Massachusetts statute. It is true that the Massachusetts board is termed an "industrial accident board," but, aside from the use of the word "accident" in that title, we are unable to find the word in the body of the act, except in two instances in section 18 of part 3, which provides for the keeping of a record and making a report by the employer in case of accident. This may be said not to be very controlling; but, in our judgment, it has to do with the inquiry as to the scope of the act. We are unable to follow those cases as authority under our statute.

In New Jersey, in the case of *Hiehens v. Magnus Metal Co.*, New Jersey Law Journal (Com. Pl., June 25, 1912), page 327, which arose under the New Jersey act (P. L., 1911, p. 134), entitled very similarly to the Massachusetts act—to wit:

An act prescribing the liability of an employer to make compensation for injuries received by an employee in the course of his employment, establishing an elective schedule of compensation, and regulating the procedure for the determination of compensation thereunder—

It was held that compensation could not be awarded for a disease known as copper poisoning, caused by contact with the copper filings and inhaling the dust from same by an employee in his work, which involved the grinding and polishing of brass products. This decision can not be considered authoritative, as it is that of the court of common pleas and not the court of last resort.

The Federal compensation act (act May 30, 1908; c. 236, 35 Stat., 556 [U. S. Comp. St. Supp., 1911, p. 468]), relating to Government employees, does not contain the word "accident" in the principal clause, but provides that compensation shall be granted "if the employee is injured in the course of such employment." Subsidiary clauses provide for the reporting of "accidents" and otherwise refer to "accidental injuries."

In the latest opinion of the Attorney General, being in the case of *John Sheeran*, where the employee was a laborer engaged in river and harbor construction, and while engaged in work in the course of his employment contracted a severe cold, which resulted in pneumonia, that officer said:

There is nothing either in the language of the act or in its legislative history which justifies the view that the statute was intended to cover disease contracted in the course of employment, although directly attributable to the conditions thereof. On the contrary, it appears that the statute was intended to apply to injuries of an accidental nature resulting from employment in hazardous occupations, not to the effects of the disease.

It has been reiterated under the Federal act that acute lead poisoning is not such an injury as entitles an employee to compensation. Similarly, where a workman suffered from cystitis and prostatitis, which he claimed was the result of overwork, it was held that he was merely suffering from disease which was not covered by the terms of the Federal act, and compensation was refused. (*Bradbury Workman's Compensation*, vol. 1, pp. 342, 343.)

We are of opinion that in the Michigan act it was not the intention of the legislature to provide compensation for industrial or occupational diseases, but for injuries arising from accidents alone.

2. If it were to be held that the act was intended to apply to such diseases, it would, in so far as it does so, be unconstitutional and in violation of section 21 of article 5 of the constitution of this State, which provides that—

No law shall embrace more than one object, which shall be expressed in its title.

That the act, if it were held to apply to and cover occupational diseases is unconstitutional in so far as it does so is shown by the fact that the body of the act would then have greater breadth than is indicated in the title. A careful analysis of the title of the act shows that the controlling words are, "providing compensation for accidental injury to or death of employees." No compensation is contemplated except for such injuries. The prefatory words are generally dependent upon the above-quoted clause. The only compensation provided is for "accidental injury to or death of employees," and the last clause of the title restricts the right to compensation or damages in such cases "to such as are provided by this act."

The Massachusetts decisions have no bearing upon this branch of the case for two reasons: One is that the titles of the respective acts differ materially; and the other reason is that Massachusetts has no such constitutional provision as ours above quoted. We have dealt with this question of title too recently to make it necessary to refer to our numerous decisions upon the subject.

For reasons above given, we are constrained to reverse the order and judgment of the industrial accident board.

Reversed.

STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

OHIO.

Communicable Diseases—Notification of Cases. (Reg. Bd. of H., Oct. 21, 1914.)

SECTION 1. The following-named diseases and disabilities are hereby made notifiable, and the occurrence of cases shall be reported as herein provided:

GROUP 1.—INFECTIOUS DISEASES.

Actinomycosis.	Paragonimiasis (endemic hemoptysis).
Anthrax.	Paratyphoid fever.
Chicken-pox.	Plague.
Cholera, Asiatic (also cholera nostras when Asiatic cholera is present or its importation threatened).	Pneumonia (acute).
Continued fever lasting seven days.	Poliomyelitis (acute infectious).
Dengue.	Rabies.
Diphtheria.	Rocky Mountain spotted (or tick) fever.
Dysentery: (a) Amebic, (b) Bacillary.	Scarlet fever.
Favus.	Septic sore throat.
German measles.	Smallpox.
Glanders.	Tetanus.
Hookworm disease.	Trachoma.
Leprosy.	Trichinosis.
Malaria.	Tuberculosis (all forms, the organ or part affected in each case to be specified).
Measles.	Typhoid fever.
Meningitis: (a) Epidemic cerebro-spinal, (b) Tuberculous.	Typhus fever.
Mumps.	Whooping cough.
Ophthalmia neonatorum (conjunctivitis of newborn infants).	Yellow fever.

GROUP 2.—OCCUPATIONAL DISEASES AND INJURIES.

Arsenic poisoning.	Dinitrobenzine poisoning.
Brass poisoning.	Caisson disease (compressed-air illness).
Carbon monoxide poisoning.	Anilin poisoning.
Lead poisoning.	Turpentine poisoning.
Mercury poisoning.	Benzol (benzine) poisoning.
Natural-gas poisoning.	Any other disease or disability contracted as a result of the nature of the person's employment.
Phosphorus poisoning.	
Wood-alcohol poisoning.	
Naphtha poisoning.	
Bisulphide of carbon poisoning.	

GROUP 3.—VENEREAL DISEASES.

Gonococcus infection.	Syphilis.
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GROUP 4.—DISEASES OF UNKNOWN ORIGIN.

Pellagra.	Cancer.
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SEC. 2. Each and every physician practicing in the State of Ohio who treats or examines any person suffering from or afflicted with, or suspected to be suffering from or afflicted with, any one of the notifiable diseases shall immediately report such case of notifiable disease to the local health officer having jurisdiction. Said report shall give the following information:

1. The date when the report is made.
2. The name of the disease or suspected disease.
3. The name, age, sex, color, occupation, address, and school attended or place of employment of patient.
4. Number of adults and of children in the household.
5. Source or probable source of infection or the origin or probable origin of the disease.
6. Name and address of the reporting physician.

Provided, That if the disease is, or is suspected to be, smallpox, the report shall, in addition, state whether the disease is of the mild or virulent type, and whether the patient has ever been successfully vaccinated; and, if the patient has been successfully vaccinated, the number of times and dates, or approximate dates, of such vaccination; and if the disease is, or is suspected to be, cholera, diphtheria, plague, scarlet fever, smallpox, or yellow fever, the physician shall give immediate notice of the case to the local health authority in the most expeditious manner available; and if the disease is, or is suspected to be, typhoid fever, scarlet fever, diphtheria, or septic sore throat, the report shall also state whether the patient has been, or any member of the household in which the patient resides is, engaged or employed in the handling of milk for sale or preliminary to sale: *And provided further*, That in the reports of cases of the venereal diseases the name and address of the patient need not be given.

SEC. 3. The requirements of the preceding section shall be applicable to physicians attending patients ill with any of the notifiable diseases in hospitals, asylums, or other institutions, public or private: *Provided*, That the superintendent or other person in charge of any such hospital, asylum, or other institution in which the sick are cared for may, with the written consent of the local health officer (or board of health) having jurisdiction, report in the place of the attending physician or physicians the cases of notifiable diseases and disabilities occurring in or admitted to said hospital, asylum, or other institution in the same manner as that prescribed for physicians.

SEC. 4. Whenever a person is known, or is suspected, to be afflicted with a notifiable disease, or whenever the eyes of an infant under two weeks of age become reddened, inflamed, or swollen, or contain an unnatural discharge, and no physician is in attendance, an immediate report of the existence of the case shall be made to the local health officer by the midwife, nurse, attendant, or other person in charge of the patient.

SEC. 5. Teachers or other persons employed in or in charge of public, private, and parochial schools, including Sunday schools, shall report immediately to the local health officer each and every known or suspected case of a notifiable disease in persons attending or employed in their respective schools.

SEC. 6. Local health officers or boards of health shall forward the reports by mail to the State department of health, after first having transcribed the information given in a book or other form of record for the permanent files of the local health office. On each report thus forwarded the local health officer shall state whether the case to which the report pertains was visited or otherwise investigated by a representative of the local health office, and whether measures were taken to prevent the spread of the disease or the occurrence of additional cases.

SEC. 7. Local health officers or boards of health shall, in addition to the provisions of section 6, report to the State department of health, in such manner

and at such times as the State board of health may require by regulation, the number of new cases of each of the notifiable diseases reported to said local health officers or boards of health.

SEC. 8. Whenever there occurs within the jurisdiction of a local health officer or board of health an epidemic of a notifiable disease, the local health officer or board of health shall, within 30 days after the epidemic shall have subsided, make a report to the State department of health of the number of cases occurring in the epidemic, the number of cases terminating fatally, the origin of the epidemic, and the means by which the disease was spread: *Provided*, That whenever the State department of health has taken charge of the control and suppression of the epidemic, the local health authority having jurisdiction need not make the report otherwise required.

GEORGIA.

Foodstuffs—Manufacture, Care, and Sale—Regulations Authorized. (Act Aug. 14, 1914.)

SECTION 1. Every place occupied or used for the preparation for sale, manufacture, packing, storage, sale, or distribution of any food shall be properly lighted, drained, ventilated, screened, and conducted with strict regard to the influence of such conditions upon the health of operatives, employees, clerks, or other persons therein employed, and the purity and wholesomeness of the foods therein produced.

SEC. 2. The commissioner of agriculture, State veterinarian, and State chemist are hereby authorized and directed to make and cause to be published such sanitary rules and regulations as are necessary in food inspection and to carry out the provisions of this act, and any person or persons or associations violating the provisions of this act or any of the rules and regulations made or published under the provisions of this act shall upon conviction be fined in a sum not exceeding \$100.

Foodstuffs—Manufacture, Care, and Sale—Construction and Care of Buildings. (Reg. Dept. of Agr., Sept. 1, 1914.)

RULING 1. Every building, room, basement, or cellar occupied or used as a bakery, confectionery, cannery, grocery, meat market, or other place or apartment used for the preparation for sale, manufacture, packing, sale, or distribution of food, shall be properly lighted, drained, plumbed, ventilated, and conducted with strict regard to the influence of such conditions upon the health of operatives, employees, clerks, or other persons therein employed, and the purity and wholesomeness of the food therein produced; and for the purpose of this act [sic] the term "food," as used herein, shall include all articles used for food, drink, confectionery, condiment, whether simple, mixed, or compound, and all other substances or ingredients used in the preparation thereof.

RULING 2. The floors, side walls, ceilings, furniture, receptacles, implements, and machinery of every establishment or place where food is manufactured, packed, sold, or distributed, and vehicles used in the transportation of food shall at no time be kept in an unclean, unhealthy, and insanitary condition, and for the purpose of this act "unclean, unhealthy, and insanitary condition" shall be deemed to exist if food in the process of manufacture, preparation, packing, storing, sale, distribution, or transportation is not securely protected from flies, dust, dirt, and, as far as may be necessary by all reasonable means, from all foreign or injurious contamination, and if the refuse, dirt, and the waste products subject to decomposition and fermentation incident to the manufacture, preparation, packing, selling, distribution, and transportation of

food are not removed daily, and if all trucks, trays, boxes, baskets, buckets, and other receptacles, chutes, platforms, racks, tables, shelves, and all knives, saws, cleaners, and other utensils and machinery used in the moving, handling, cutting, chopping, mixing, canning, and all other processes are not cleaned thoroughly daily, and if the clothing of the employees, operatives, clerks, or other persons therein employed is not reasonably clean.

RULING 3. The side walls, ceilings of every bakery, confectionery, creamery, cheese factory shall be plastered, wainscoted, bricked, or sealed with metal or lumber and shall be oil painted or kept well limewashed, and all interior woodwork in every bakery, confectionery, creamery, cheese factory shall be kept washed clean with soap and water; and every building, room, basement occupied or used for the preparation, manufacture, packing, sale, or distribution of food shall have an impermeable floor made of cement or tile laid in cement, brick, wood, or other suitable nonabsorbent material which can be flushed and washed with water.

RULING 4. The doors, windows, or other openings of every food-producing establishment or distributing establishment during the fly season shall be fitted with self-closing doors and wire windows of not coarser than 14-mesh wire, gauze, or other mechanical device for the exclusion of flies, except where food is otherwise protected.

RULING 5. Every building, room, basement, or cellar occupied or used for the preparation, manufacture, packing, canning, sale, or distribution of food shall have convenient toilets or toilet room separate and apart from the room or rooms where the process of production, manufacture, packing, canning, selling, or distributing is conducted. The floors of such toilet rooms shall be of cement, tile, wood, brick, or any other nonabsorbent material and shall be washed and scoured daily. Such toilet or toilets shall be furnished with separate ventilating flues or pipes discharging into said pipes or on the outside of the building in which they are situated. Lavatories and wash rooms shall be adjacent or convenient to the toilet rooms and shall be supplied with soap and water and towels and shall be maintained in a sanitary condition. Operatives, clerks, and all persons who handle the material from which food is prepared or the finished product, before beginning work or after visiting toilet or toilets, shall wash their hands thoroughly in clean water.

RULING 6. Cuspidors for the use of operatives, employees, clerks, or other persons shall be provided whenever necessary, and each cuspidor shall be thoroughly emptied and washed out daily with a disinfectant solution, and some of such solution shall be left in each cuspidor while it is in use. No operative, employee, or other person shall expectorate on the floors or side walls of any building, room, basement, or cellar where the production, manufacture, packing, preparation, or sale of food is conducted.

RULING 7. No person or persons shall be allowed to live or sleep in any room of a bakeshop, dining room, confectionery, creamery, cheese factory, or place where food is prepared for sale, served, or sold.

RULING 8. The pure food and drug inspector or other legal agent of the commissioner or agriculture shall have full power at all times to enter every building, room, basement, or cellar occupied or used for the producing for sale, manufacture, distribution, or transportation of food, or any building suspected of being used therefor, and to inspect the premises and all utensils, fixtures, furniture, and machinery used aforesaid; and if upon inspection any food producing or distributing establishment, conveyance, employer, operative, employee, clerk, driver, or other persons found to be violating the provisions of this act, or if the production, preparation, manufacture, packing, sale, distribution, or transportation is being conducted in a manner detrimental to the health of the

employees and operatives or to the character or quality of the food therein produced, manufactured, packed, sold, distributed, or conveyed, the officer or inspector making the examination or inspection shall report such violations to the commissioner of agriculture, State veterinarian, and State chemist, and they shall issue an order to the person or persons in authority at the aforesaid establishment to abate the conditions and violations or make such improvements as may be necessary to abate them within the period of five days or such reasonable time as may be required to abate them. Such order shall be in writing, and the person receiving the order may, within five days of the issuance of the order, appear in person or by attorney before the commissioner of agriculture, State veterinarian, and the State chemist to give reason why such instruction should not be obeyed.

MUNICIPAL ORDINANCES, RULES, AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

SAN FRANCISCO, CAL.

Foodstuffs—Production, Care, and Sale—Protection from Rats—Certificate Required from Board of Health. (Ord. 3917, Sept. 22, 1914.)

SECTION 1. On and after the passage of this ordinance it shall be unlawful for any person, firm, or corporation to engage in the handling, manufacture, or sale of foodstuffs intended for human consumption, or after six months from the date of passage of this ordinance to continue in said business or businesses except in compliance with the conditions hereinafter specified.

SEC. 2. It shall be unlawful for any person, firm, corporation, or their servants or employees to maintain or operate within any building, room, apartment, dwelling, basement, or cellar a bakery, confectionery, cannery, packing house, candy factory, ice-cream factory, restaurant, hotel, coffee and chophouse, grocery, meat market, sausage factory, delicatessen store, or other place in which food is prepared for sale, produced, manufactured, packed, stored, or otherwise disposed of, or to vend or peddle from any wagon or other vehicle, or from any basket, hand steamer, street stand, any food product whether simple or compound, or a mixture, which is sold or otherwise disposed of for human consumption within the city and county of San Francisco without having first obtained a certificate, issued by the board of health and signed by the health officer of said city and county, that first, the premises are in sanitary condition and that all proper arrangements for carrying on the business without injury to the public health have been complied with, and second, that the provisions of all ordinances, or regulations made in accordance with ordinances, for the conduct of such establishments have been complied with. Said certificate when issued shall be kept displayed in a prominent place on the premises of the establishment, stand, vehicle, wagon, or peddler for which or whom it is issued and is not transferable without the consent of the board of health.

SEC. 3. For the purpose of this ordinance the term "food" shall include all articles used for food, drink, confectionery, or condiment, whether simple or compound and all substances and ingredients used in the preparation thereof.

SEC. 4. It shall be the duty of the board of health, upon application from any person, firm, or corporation desiring to open, conduct, or continue any place of business connected with the manufacture, handling, vending, or peddling or sale of foodstuffs, within the limits of the city and county of San Francisco, before issuing the certificate specified in section 2, to cause the premises on which it is proposed to carry on such business, or in which said business is being carried on, to be inspected with a view of ascertaining whether said premises are in a proper sanitary and rat-proof condition for the conduct of such business, also whether the provisions of all ordinances or regulations made in accordance with ordinances relating thereto have been complied with.

SEC. 5. The certificate provided for in section 2 of this ordinance shall be valid for one year from date of issue. After said period of one year has

elapsed a new certificate shall be applied for and issued in the same manner and under the same conditions as the original certificate.

A certificate may at any time be revoked for cause after a hearing by the board of health.

No charge whatsoever shall be made or compensation or fee collected or accepted for the performance of any of the services required by this ordinance in the inspection of premises or the issuance of certificates.

SEC. 6. No person, firm, or corporation engaged in the manufacture, handling, or sale of foodstuffs shall require, permit, or allow any person suffering from any communicable disease to work, lodge, sleep, or remain within or upon the premises.

It shall be unlawful for any person to bring into, or for any person, firm, or corporation to allow any dog or dogs to enter any place of business designated in this ordinance unless said dog or dogs are held in leash.

It shall be unlawful for any person, firm, or corporation to display on the street, or in the open air, food products liable to be injured, infected, or polluted without adequate protection from dirt, flies, animals, or insects.

SEC. 7. The floors, sidewalks, ceilings, furniture, receptacles, utensils, implements, and machinery of every establishment or place where food is manufactured, packed, stored, sold, or distributed shall be at all times kept in a clean, healthful, and sanitary condition; and for the purposes of this ordinance, unclean, unhealthful, and insanitary conditions shall be deemed to exist if food in the process of manufacture, preparation, packing, storing, sale, or distribution is not securely protected from dust, dirt, rats, flies, and other vermin, and, so far as may be possible, protected by any reasonable means from all other foreign or injurious contamination; and all refuse, dirt, and waste products subject to putrefaction and fermentation incident to the manufacture, preparation, packing, storing, selling, and distribution of food shall be removed once in each day; and all trucks, trays, boxes, baskets, and buckets, and other receptacles, chutes, platforms, racks, tables, shelves, and all knives, saws, cleavers, and other implements and machinery used in the moving, handling, cutting, chopping, mixing, canning, and all other processes used in the preparation of food, shall be thoroughly cleaned at least once in each day, and all operatives, employees, clerks, and other persons therein employed or engaged shall maintain their persons and clothing in a clean and sanitary condition at all times and shall not store or keep unclean or soiled clothing or articles for personal use in or about said premises.

SEC. 8. Every building, room, basement, or cellar, occupied or used as a place for the preparation, manufacture, packing, canning, sale, or distribution of foodstuffs, shall have adequate toilet facilities in a room separate and apart from the room or rooms where the process of production, manufacture, packing, canning, selling, or distributing is conducted. The floors of such toilets shall be of cement, tile, or other nonabsorbent material, and shall be washed and scoured daily. Such toilets shall comply with the plumbing laws of the city and county of San Francisco regarding their installation and ventilation and shall be maintained in a clean condition. Lavatories and wash rooms shall be adjacent to toilet rooms and shall be supplied with soap, running water, and towels for the cleaning of hands, and shall be maintained in a clean and sanitary manner. Operatives, employees, clerks, and all persons who handle the foodstuffs, either raw or prepared, before beginning work, and immediately after visiting a toilet, shall wash their hands and arms thoroughly in clean water and dry them on a clean towel not previously used by any other person. The provision of soap and towels for common use is prohibited.

SEC. 9. Cuspidors for the use of operatives, employees, clerks, and other persons shall be provided, and each cuspidor shall be emptied and washed out daily with an efficient disinfecting solution approved by the board of health and not less than 5 ounces of said solution shall be kept in each cuspidor while in use. No operative, employee, clerk, or other person shall expectorate or discharge any substance from his nose or mouth, nor shall he commit any other nuisance on the floor or interior side walls of any building, room, basement, or cellar where the manufacture, production, packing, storing, preparation or sale of any food or food product is conducted.

SEC. 10. The carrying on of any occupation in the place or room set apart for the preparation, storage, or sale of foodstuffs, whether cooked, or raw, or any allied operations that will generate or cause to arise a dust, smoke, or offensive odor, is prohibited.

The plucking of chickens and other fowl, and the skinning or cleaning of animals shall be carried on in a separate room, and all dust, smoke, or offensive odors arising therefrom must be disposed of by air shafts, fans, forced air, or such other means as may be approved by the board of health.

SEC. 11. No person shall be allowed to, nor shall he reside or sleep in any room of a bake shop, public dining room, hotel, restaurant, kitchen, confectionery, or other place where food or foodstuffs are prepared, produced, manufactured, served, or sold.

SEC. 12. It shall be the duty of every occupant, whether owner or lessee, of any bakery, candy factory, delicatessen, restaurant, or other place where foodstuffs are manufactured, prepared, stored, or served to provide full protection for his cooked food and other wares from dust, dirt, flies, and vermin by the use of suitable glass cases, wire screens, or other methods approved by the board of health, and shall cause the abatement and destruction of vermin and flies wherever found.

SEC. 13. The board of health shall from time to time adopt such rules and regulations as it may deem necessary and proper to give effect to this ordinance and in accordance therewith.

SEC. 14. Any person, company, or corporation violating any of the provisions of this ordinance shall be guilty of a misdemeanor, and upon conviction thereof, shall be punished for the first offense by a fine not less than \$10, and for the second offense by a fine not less than \$25, and thereafter by a fine not to exceed \$100 or 100 days in the county jail, or both.

JOHNSTOWN, PA.

Board of Health—City Council to Act as. (Ord. Jan. 13, 1914.)

SECTION 1. The council of the city of Johnstown shall exercise all the rights, duties, and obligations imposed by law upon boards of health in the cities of the third class.

SEC. 2. All ordinances or parts of ordinances inconsistent herewith be, and the same are hereby, repealed.

Health Officer—Appointment, Duties, and Salary. (Ord. Apr. 3, 1914.)

SECTION 1. The council shall elect a health officer who is a practicing physician and resident of the city of Johnstown, whose duty it shall be to treat all patients in the municipal hospital, treat persons confined in the city prison, vaccinate such persons as are required to be vaccinated by the ordinance of the city, rules of the department of health, or State law, diagnose cases of conta-

gious disease, supervise the department of health, and perform such other duties as may be assigned to him by council.

SEC. 2. The health officer shall be paid \$2,000 per annum, payable in equal monthly installments, for his services.

SEC. 3. The first health officer elected under this ordinance shall serve until the first Monday of January, 1915, or until his successor is elected, and thereafter the health officer shall be elected on the first Monday of January of each year to serve for the term of one year, or until his successor is elected.

Sanitary Inspector—Appointment, Duties, and Salary. (Ord. Apr. 3, 1914.)

SECTION 1. The council shall elect a competent person who is a resident of the city as sanitary inspector, whose duty it shall be to inspect all premises, such as hotels, boarding and lodging houses, stores, cafés, restaurants, cellars, yards, slaughterhouses, etc., to serve all notices for the abatement of nuisances, to assist the health officer in the various duties assigned to him, to institute all prosecutions for the violation of rules of the department of health, and perform such other duties as may be assigned to him by the health officer or council.

SEC. 2. The sanitary inspector shall be paid \$1,080 per annum, payable in equal monthly installments, for his services.

SEC. 3. The first sanitary inspector elected under this ordinance shall serve until the first Monday of January, 1915, or until his successor is elected, and thereafter the sanitary inspector shall be elected on the first Monday of January of each year, to serve for one year, or until his successor is elected.

Births, Deaths, and Marriages—Registrar of—Appointment, Duties, and Salary. (Ord. Apr. 3, 1914.)

SECTION 1. The council shall elect a competent person who is a resident of the city as registrar, whose duty it shall be to make records of all contagious and infectious diseases, record all births, deaths, and marriages in the city, have charge of the general accounts of the department of health, and to make such other records as it may be necessary to keep in the office of the department of health, and perform such other duties as council may assign to him.

SEC. 2. The registrar shall be paid \$720 per annum, payable in equal monthly installments, for his services.

SEC. 3. The first registrar elected under this ordinance shall serve until the first Monday of January, 1915, and thereafter the registrar shall be elected on the first Monday of January of each year, to serve one year, or until his successor is elected.

Quarantine Guards—Appointment and Duties. (Ord. Apr. 3, 1914.)

SECTION 1. The council shall elect one competent person who is a resident of the city as quarantine guard, whose duty it shall be to placard all houses in which there is a contagious disease, remove the quarantine, to fumigate all houses and places necessary to be fumigated under the rules and regulations of the department of health, to see that quarantine is not broken, and to assist the sanitary inspector in the performance of his duty when not otherwise engaged.

SEC. 2. The quarantine guard shall be paid \$900 per annum, payable in equal monthly installments, for his services.

SEC. 3. In case of an epidemic of any contagious disease or at any other time when it is necessary to have more than one quarantine guard, council shall elect one or more assistants to serve for such time as may be necessary, and to pay such assistants such salary per day as council may fix.

SEC. 4. The first regular quarantine guard elected under this ordinance shall serve until the first Monday of January, 1915, or until his successor is elected, and thereafter the regular quarantine guard shall be elected on the first Monday of January of each year, to serve for the term of one year or until his successor is elected.

Nuisances. (Ord. 20, Mar. 17, 1914.)

SECTION 1. The term "board of health," as used in this ordinance, shall be construed to mean council. That whatever is dangerous to human life or health, whatever renders the air or food or water or other drink unwholesome, and whatever building, erection, or part of cellar thereof is overcrowded, or not provided with adequate means of ingress or egress, or is not sufficiently supported, ventilated, sewered, drained, cleaned, or lighted, are declared to be nuisances and to be illegal, and every person having aided in creating or contributing to the same, or who may support, continue, or retain any of them shall be deemed guilty of a violation of this rule and also liable for the expense of the abatement and remedy thereof.

SEC. 2. The odor arising from phosphate, bone dust, or other fertilizers having a penetrating odor, being so offensive as to thereby make it injurious to the public health, the storing of the same within the city of Johnstown is hereby declared a public nuisance, illegal, and forbidden, except under the following conditions:

SEC. 3. Phosphate, bone dust, or other fertilizers having a penetrating or offensive odor shall not be stored in such sections of the city as are closely built up and thickly populated.

SEC. 4. Upon complaint to the health officer by any citizens living in the vicinity of a storage place of phosphate, bone dust, or other fertilizers that the odors arising from the same are offensive, it shall be the duty of the health officer to make an immediate examination of the storage place and vicinity, and if the odor arising from the same is offensive he shall declare it a nuisance and direct the removal of the phosphate, bone dust, or other fertilizer within five days.

Slaughterhouses—Sanitary Regulation. (Ord. 20, Mar. 17, 1914.)

SEC. 5. No person or persons, without the consent of the board of health, shall build or use any slaughterhouse within the limits of this city, and the keeping and slaughtering of all cattle, sheep, swine, and the preparation and keeping of all meat, fish, birds, or other animal food shall be in the manner best adapted to secure and continue their wholesomeness as food; and every butcher or other person owning, leasing, or occupying any place, room, or building wherein any cattle, sheep, or swine have been or are killed or dressed, and every person being the owner, lessee, or occupant of any room or stable wherein any animals are kept, or any market, public or private, shall cause such place, room or building, stable or market to be thoroughly cleansed and purified, and all offal, blood, fat, garbage, refuse, and unwholesome and offensive matter to be removed therefrom at least once in 24 hours after the use thereof for any of the purposes herein referred to, except from November 1 to April 1, when the same shall be removed at least twice in a week, and shall also at all times keep all woodwork, save floors and counters, in any building, place, or premises aforesaid, thoroughly painted or whitewashed, and the floors of such building, place or premises shall be so constructed of concrete or cement as to prevent blood or foul liquids or washings from settling in the earth beneath.

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SEC. 7. No blood pit, dung pit, offal pit, or privy well shall remain or be constructed within any slaughterhouse. Anyone offending against this rule shall be guilty of creating and maintaining a nuisance prejudicial to public health, and shall be required to remove the nuisance within 10 days from the date of notice.

Should this not be done, the health officer or his assistant is hereby directed to effect the removal at the expense of the owner and to prosecute the parties for the penalty of maintaining a nuisance.

SEC. 8. The owners, agents, or occupants of all slaughterhouses located within the city are required to provide movable metal water-tight receptacles with tightly-fitting covers for the purpose of receiving and conveying away blood, offal, filth, and other offensive matter, and these matters are to be deposited in said receptacles immediately after the slaughtering and removed, with all fat, hides, skins, tripe, and bones at least three times a week.

All receptacles must be thoroughly cleaned in hot water before being returned for use.

SEC. 9. The owners, agents, or occupiers of all slaughtering houses are required to remove the contents of any manure pit to bottom or manure pile on the premises twice in each week during entire year, the said premises and contents of manure pits being hereby declared a nuisance prejudicial to public health, unless subjected to frequent disinfection and cleaning. The depositing of slaughterhouse offal of any kind in a manure pit is a nuisance prejudicial to health and so forbidden. No pigs or hogs shall be kept in the same inclosure with a slaughterhouse, nor shall they be fed, there or elsewhere, upon the offal of slaughtered animals.

Domestic Animals—Keeping of—Communicable Diseases—Disposal of Dead Bodies. (Ord. 20, Mar. 17, 1914.)

SEC. 6. No animal affected with a communicable disease dangerous to the public health shall be brought or kept within the limits of this city except by permission of the board of health, and the bodies of animals dead of such diseases or killed on account thereof shall not be buried within 500 feet of any residence nor disposed of otherwise than as the said board or its health officer shall direct.

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SEC. 10. The keeping of swine and cattle in any slaughterhouse or upon the premises except for immediate slaughtering, not to exceed 48 hours, is hereby declared to be a nuisance prejudicial to public health, and the owners, agents, or occupiers of the premises are required to remove the nuisance within two days after notice.

SEC. 11. No pigs, hogs, or shoats shall be kept within the limits of the city of Johnstown except as provided in the preceding section.

* * * * *

SEC. 14. The owners of dead animals or fowls dying from disease or accident shall bury or burn them as soon as possible. Where animals or fowls are killed by railroad cars or street cars they shall be removed, buried, or burned by the company or companies owning or controlling said roads. When dead animals or fowls are found in the streets, lanes, or alleys of the city it shall be the duty of the street commissioner or other person in authority over the streets to remove, burn, or bury said dead animals or fowls at once, provided the owner or person responsible for said animals or fowls can not be found or notified.

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SEC. 21. Owners of chickens or other fowls must keep them in good condition, healthy and clean. No cellar or part thereof shall be used as a pen for poultry. Poultry houses, yards, and pens must be kept clean and free from vermin. They must be dry, airy, light, and not overcrowded. Refuse food and excrement shall be removed as often as necessary to prevent odors arising therefrom.

Foodstuffs—Care and Sale. (Ord. 20, Mar. 17, 1914.)

SEC. 12. All persons selling or exposing for sale any provisions, food, meat, fish, poultry, fruit, vegetables, or anything for human consumption shall keep their utensils and places of business in a clean, neat, and wholesome condition. No food or drink shall be sold or offered for sale which is stale, unwholesome, of bad odor or appearance, decayed, spoiled, or partly spoiled.

SEC. 13. No meat, fish, birds, fowl, vegetables, milk, and no human food not being then healthy, fresh, sound, wholesome, fit, and safe for such use, nor any animal or fish that has died by disease, and no carcass of any calf, pig, or lamb, which at the time of its death was less than four weeks old, and no meat therefrom shall be brought within the limits of this city or offered for sale as food anywhere in said city.

Hotels, Restaurants, Boarding and Eating Houses—Sanitary Regulation. (Ord. 20, Mar. 17, 1914.)

SEC. 15. Proprietors of all hotels, restaurants, oyster, eating, and boarding houses shall keep their premises in a clean, wholesome condition. Their garbage, waste products, and offal shall be kept in accordance with the rules applying to garbage, and it is especially provided that where oysters, clams, crabs, shellfish, or fish of any kind are kept or sold the shells and waste of the same shall be removed or destroyed at least three times a week from the 1st day of April until the 1st day of December, and during other months twice a week.

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SEC. 238. Proprietors or persons in charge of public eating places are hereby forbidden to permit the use of drinking vessels, dishes, spoons, knives, forks, finger bowls, and other eating utensils which have not been thoroughly cleansed after each individual use.

Offensive Trades—Regulations of. (Ord. 20, Mar. 17, 1914.)

SEC. 16. No person or company shall erect or maintain within the limits of this city any manufactory or place of business dangerous to life or detrimental to health, or where unwholesome, offensive, or deleterious odors, gas, smoke, deposit, or exhalations are generated, such as tanneries, refineries, manufactories of starch, glue, leather, chemicals, fertilizers, gas, etc., without the written permit of the board of health, and all such establishments shall be kept clean and wholesome, so as not to be offensive or deleterious; no waste substance, refuse, or injurious matter shall be allowed to accumulate upon the premises or be thrown or allowed to run into any public waters, stream, water course, street, road, or public place. And every person or company conducting such manufactory or business shall use the best approved and all reasonable means to prevent the escape of smoke, gases, and odors, and to protect the health and safety of all operatives employed therein.

SEC. 17. The business of boiling bones and dead animals shall not be allowed in the city limits.

Stables; Construction and Care—Manure; Disposal of. (Ord. 20, Mar. 17, 1914.)

SEC. 18. The keeper or keepers of a livery or other stable shall keep his or their stable and stable yard clean, and shall remove all manure on premises at least three times a week between the 15th of May and the 1st of November, and at least twice a week between November 1 and May 15, nor shall any manure be removed except in a tight vehicle, so protected that the manure, in process of removal, may not be dropped or left in any street, road, lane, or way of the city.

SEC. 19. All livery, sale, or boarding stables must be high and roomy from floor to ceiling and must be provided with large ventilating shafts carried above the top of the roof; they must also have a thick outer wall, the flooring of the stalls to be constructed of material that will not emit sound caused from the pawing and stamping of animals; also be provided with proper sewer connections to carry off the waste liquid. The manure must be kept in a cellar or pit provided for that purpose with ventilating shaft carried above the roof—the pit, box, cellar, and ventilating shaft to be screened to exclude flies and to be kept so. Proper sewer connections for washing vehicles must also be provided.

SEC. 20. All private barns and stables within this city shall be constructed according to sanitary requirements. All fronts of barns and stables facing streets or alleys shall be tightly closed, except doors used for ingress and egress. All stables or barns that contain two or more animals shall be provided with high ventilating shafts through the top of the roof to obviate the nuisance of fouling the surrounding air. All manure must be kept in tight boxes or in pits, fly tight, and not more than one two-horse load of it shall be allowed to accumulate at one time, to be removed in tight vehicles as provided for in these rules.

Drinking Water—Protection of Sources of. (Ord. 20, Mar. 17, 1914.)

SEC. 22. All wells used for drinking or household use must be clean and free from contamination of any kind. If the water in any well is found to be polluted, it shall be condemned and closed, and, if necessary, disinfected at the direction of the health officer, who shall notify the tenants or owner of such action.

SEC. 23. All water furnished in the city of Johnstown for drinking or household purposes shall be pure and wholesome, free from all contamination or pollution, either animal or vegetable, or organic or inorganic. The supply shall be free from all products of wastes of human or animal life or of human industries. The reservoirs, inlets, settling basins, and supply pipes shall be cleaned and flushed as often as is necessary to keep the water sweet, odorless, and free from contamination.

SEC. 24. All sewer drains shall be water-tight within the limits of this city.

No sewer drain shall empty into any lake, pond, or other source of water used for drinking purposes, or into any standing water within the jurisdiction of this city.

Stagnant Water—Prevention of the Breeding of Mosquitoes. (Ord. 20, Mar. 17, 1914.)

SEC. 25. All pools or ponds of stagnant water within the city limits whereby free drainage is prevented shall be kept constantly covered from May 1 to November 1 with a coating of kerosene oil sufficient for the destruction of mosquitoes. Said oil to be placed thereon by or by the direction of the owner of the property upon which said pool or pond exists.

Communicable Diseases—Notification of Cases—Quarantine—Placarding—School Attendance—Disinfection—Hospitalization—Vaccination. (Ord. 20, Mar. 17, 1914.)

SEC. 26. Every physician who shall treat or examine any person in the city of Johnstown suffering from or afflicted with actinomycosis, anterior poliomyelitis, anthrax, bubonic plague, cerebrospinal meningitis (epidemic) (cerebrospinal fever), chicken pox, Asiatic cholera, diphtheria (diphtheritic croup, membranous croup, putrid sore throat), epidemic dysentery, erysipelas, German measles, glanders (farcy), rabies (hydrophobia), leprosy, malarial fever, measles, mumps, pneumonia (true), puerperal fever, relapsing fever, scarlet fever (scarlet rash, scarlatina), smallpox (variola, varioloid), tetanus, trachoma, trichiniasis, tuberculosis in any form, typhoid fever, typhus fever, whooping cough, ophthalmia neonatorum, or yellow fever shall forthwith make a report in writing to the board of health upon blanks supplied for that purpose by the board of health, in which report he shall, over his or her own signature, state the name of the disease and the name, age, sex, color, nativity, and occupation, if any, of the person suffering therefrom, together with the street and house number of the premises in which said person may be located, or otherwise sufficiently designate the same, the date of the onset of the disease, the name and occupation of the householder in whose family the disease may have occurred, the number of children in said household attending school, and the name or names of the school or schools so attended, together with such other information relating to said case as may be required by said board of health.

SEC. 27. All physicians practicing within the limits of the city of Johnstown shall make an immediate report of each and every case of scabies and impetigo-contagiosa.

SEC. 28. Whenever any householder knows that any person within his family or household has a communicable disease dangerous to the public health he shall immediately report the same to the health officer, giving the street and number, or location, of the house, together with such other information relating to said case as may be required.

SEC. 29. Upon receipt by the board of health of a report of the existence of a case of anthrax, bubonic plague, cerebrospinal meningitis (epidemic), cerebrospinal fever, spotted fever, chicken pox, Asiatic cholera, diphtheria, (diphtheritic croup, membranous croup, putrid sore throat), erysipelas, German measles, glanders (farcy), leprosy, malarial fever, measles, mumps, relapsing fever, scarlet fever (scarlatina, scarlet rash), smallpox (variola, varioloid), typhoid fever, typhus fever, whooping cough, or yellow fever the said board of health shall quarantine or cause to be quarantined the premises in which such disease exists, and any person or persons who has or have been exposed thereto; and shall post or cause to be posted in a conspicuous place or places upon the premises in which said disease may be located a placard or placards upon which shall be printed in conspicuous letters the name of the disease from which the person or persons in said house or premises is suffering, with the warning that the said premises are quarantined and shall so remain until the quarantine is removed by the board of health: *Provided*, That variola or varioloid shall be placarded as "smallpox" and that diphtheritic croup, membranous croup, and putrid sore throat shall be placarded as "diphtheria," and that scarlatina and scarlet rash shall be placarded as "scarlet fever": *Provided further*, That in addition to the placarding aforesaid the board of health may, for the purpose of enforcing quarantine regulations, place a guard or guards over said house or premises.

Said placard shall remain on said houses or buildings wherein the aforesaid diseases exist, and all inmates shall remain in their houses until notified by the health officer that no further danger exists, except such members of said quarantined houses who furnish evidence to the board of health that their entrance or departure from said premises is absolutely necessary for the welfare of the family in distress and that said privilege will in nowise jeopardize the health of those with whom they may come in contact, and shall enter into an agreement with said board of health for the faithful compliance with the rules and regulations prescribed for the privilege aforesaid. And all other persons except attending physicians are forbidden to enter or depart from said premises during the time the said premises are placarded. Nor shall such placards be removed except by order or permission of the health officer, and heads of families will be responsible for the illegal removal of placards placed as aforesaid.

SEC. 30. No child or other person suffering from anthrax, bubonic plague, cerebrospinal meningitis (epidemic), cerebrospinal fever, spotted fever, Asiatic cholera, smallpox (variola, varioloid), typhus fever, yellow fever, relapsing fever, or leprosy, or residing in the same premises with any person suffering from any of said diseases shall be permitted to attend any public, private, parochial, Sunday, or other school; and the teachers of public schools and the principals, superintendents, and teachers or other persons in charge of private, parochial, Sunday, or other similar schools are hereby required to exclude any and all such children or persons from said schools; such exclusion to continue for a period of 30 days following the release, by reason of the recovery or death of the person last afflicted in said premises or his or her removal to a hospital, the removal of quarantine and the thorough disinfection of the premises.

SEC. 31. No child or other person suffering from scarlet fever (scarlatina, scarlet rash) shall be permitted to attend any public, private, parochial, Sunday, or other school, and the teachers of public schools and the principals, superintendents, and teachers or other persons in charge of private, parochial, Sunday, and other similar schools are hereby required to exclude any and all such children and persons from such schools; such exclusion to continue for a period of 30 days following the removal of quarantine and the disinfection of the premises wherein such child or other person shall reside; and no child or other person residing in the same premises with any person suffering from scarlet fever (scarlatina, scarlet rash) shall be permitted to attend any public, private, parochial, Sunday, or other school; and the teachers of public schools and the principals, superintendents, teachers, or other persons in charge of private, parochial, Sunday, and other similar schools are hereby required to exclude any and all such children or persons from said schools until the expiration of the quarantine period for the last person in the said premises so afflicted, provided the person or persons so afflicted has or have been properly isolated during the quarantine period; otherwise such exclusion to continue for a period of 10 days following the removal of quarantine and disinfection of the premises, by reason of the recovery, death, or removal to a hospital of the person last afflicted in said premises: *Provided, however,* That any child or person who is immune from scarlet fever, by virtue of a former attack—this fact being attested by the attending physician—may, on an outbreak of the said disease in the premises in which he or she resides, be allowed, after taking a disinfecting bath and putting on disinfected clothing, to remove therefrom, and take up his or her residence in other premises occupied exclusively by adults, and may, from and after 10 days from such removal, be admitted into any of the said schools.

SEC. 32. No child or other person suffering from diphtheria (diphtheria croup, membranous croup, putrid sore throat) or residing in the same premises with

any person suffering therefrom, shall be permitted to attend any public, private, parochial, Sunday, or other school; and the teachers of public schools, and the principals, superintendents, and teachers or other persons in charge of private, parochial, Sunday, or other similar schools, are hereby required to exclude any and all such children or persons from said schools; such exclusion to continue for a quarantine period of 21 days from the date of onset of the disease in the last person so afflicted; or for a period of 14 days from the date of onset of the disease in the person last so afflicted: *Provided*, That antitoxin has been used for treatment of the person or persons so afflicted, and for the immunizing of the inmates of the premises not so afflicted: *And further provided*, That two negative bacteriological cultures have been secured, by the city bacteriologist, from the diseased area of the person last so afflicted, on two successive days; said children or persons may, in either event, thereafter, upon the removal of quarantine and disinfection of the premises, be immediately readmitted to any of said schools.

SEC. 33. No child, or other person, suffering from measles, German measles, chicken pox, or mumps, or residing in the same premises with any person suffering therefrom, shall be permitted to attend any public, private, parochial, Sunday, or other school, and the teachers, principals, superintendents, or other persons in charge of the above-named schools are hereby required to exclude any or all such children or persons from said schools, such exclusion to continue for a quarantine period of 21 days and until the said quarantine is removed and the premises disinfected: *Provided, however*, That any child or person who may have been exposed to any of the said diseases, owing to an outbreak thereof in the premises in which he or she resides, but who shall not have developed the same, shall be allowed, after taking a disinfecting bath and putting on disinfected clothing, to remove therefrom, and take up his or her residence in other premises occupied exclusively by adults and may after 14 days from such removal, be admitted into any of said schools.

SEC. 34. No child or other person, suffering from whooping cough or erysipelas shall be permitted to attend any public, private, parochial, Sunday, or other school; and the teachers, principals, superintendents, or other persons in charge of the above-named schools, are hereby required to exclude any and all such children and persons from said schools for a period of 30 days following the removal of the quarantine on the premises wherein such children or person resides, respectively, and the disinfection of the premises and of the person or persons suffering from said disease.

SEC. 35. No child or other person excluded from any school by the provisions of these rules shall be readmitted thereto unless he or she or some person on his or her behalf shall furnish to the principal, superintendent, teacher, or other person in charge of said school, a certificate setting forth that the conditions for such readmission prescribed by these rules have been complied with; which certificate shall be signed by the registrar; and the registry of all public, private, parochial, Sunday, and other schools shall exhibit the names and residence of all children and persons excluded therefrom or readmitted thereto agreeable to the provisions of these rules, and said registry shall be open at all times to the inspection of the board of health or its respective officers and agents.

SEC. 36. Blanks whereon to make the reports and certificates required by these rules shall be supplied by the board of health.

SEC. 37. It shall be the duty of the health authorities of the city of Johnstown to notify the principals, superintendents, teachers, or other persons in charge of a public, private, parochial, Sunday, or other school, whenever it is

reported to the board of health that a pupil attending any one of said schools or a person in the home or place of residence of said pupil is suffering from any of the above-mentioned diseases.

SEC. 38. Upon the removal to a hospital or other place, or upon the discharge by the recovery or death of any person or persons who has or have suffered from any of the diseases mentioned above, all premises which have been occupied by the said person or persons while suffering from any of the said diseases shall be fumigated and disinfected and bedding, clothing, or other infected articles shall be disinfected or destroyed at such time and in such manner as may be authorized and required by the board of health.

SEC. 39. No person suffering from any of the diseases mentioned above, nor anyone who has charge of the person so suffering, shall enter any hired vehicle or other public conveyance, or permit anyone in his or her charge who is suffering therefrom to enter such vehicle without previously notifying the owner or driver thereof that he or she, or the person in his or her charge, is so suffering; and the owner or driver of such vehicle shall immediately provide for the disinfection of such conveyance, under the direction of the health authorities.

SEC. 40. No person suffering from anthrax, bubonic plague, cerebrospinal meningitis (epidemic), cerebrospinal fever, spotted fever, chicken pox, Asiatic cholera, diphtheria (diphtheritic croup, membranous croup, putrid sore throat), German measles, measles, mumps, relapsing fever, scarlet fever (scarlatina, scarlet rash), smallpox (variola, variloid), typhus fever, yellow fever, or whooping cough shall willfully expose himself or herself in any street or public place or public conveyance, nor shall any person in charge of anyone so suffering thus expose the sufferer.

SEC. 41. No person shall, without previous disinfection, give, lend, sell, transmit, or expose any bedding, clothing, rags, or other articles which have been exposed to infection from any of the above-mentioned diseases: *Provided*, That such restriction shall not apply to the transmission of articles with proper precaution, for the purpose of having the same disinfected.

SEC. 42. No person shall let any room, house or part of a house, in which there has been a person suffering from any of the diseases mentioned above, without having such room, house, or part of house and all articles therein, previously disinfected to the satisfaction of the health authorities.

SEC. 43. The keeper of a hotel, boarding house, tenement, or apartment house, shall be deemed as letting a part of a house to any person who shall be admitted as a guest into such hotel, boarding house, tenement, or apartment house.

SEC. 44. That where a suspected case of contagious disease may exist the health officer is directed to make a thorough examination of such suspected case and report the result of his examination to the board of health.

If the attending physician and health officer, after diagnosing a case, disagree as to the nature of the said disease, then the health officer is hereby authorized to call in consultation two disinterested physicians whose report shall be filed with the board of health for their consideration.

SEC. 45. No physician who may in good faith, in obedience to these rules, report a case as one of communicable disease which subsequently proves not to be such, shall be liable to a suit of damages for such error in reporting. It shall be the duty of such physician and of all other attendants upon persons affected with such diseases to avoid exposure to the public of any garment or clothing about their own persons that may have been subject to the risk of infection.

SEC. 46. No person shall, within the limits of this city, unless by permit of the board of health, carry or remove from one building to another any patient affected with any communicable disease, by any exposure of any individual so affected, or of the body of such individual, or of any article capable of conveying contagion or infection, or by any negligent act connected with the care or custody thereof, or by a needless exposure of himself or herself, cause or contribute to the spread of disease from any such individual or dead body.

SEC. 47. The clothing, bed clothing, and bedding of persons who have been sick with any communicable disease, dangerous to the public health, and the rooms which they have occupied during such sickness, together with their furniture, shall be disinfected under the direction of the board of health, when quarantine is to be discontinued.

SEC. 48. No person shall open or cause to be opened any door, window, or other entrance which opens into a room, closet, hall, or any part of a building whatsoever within six hours after the same has been closed for fumigating by an officer or agent of the board of health; nor shall a person put out or in any way disturb a fumigator within six hours after it has been placed and started to perform its work by the aforesaid officer or agent. Any person who shall remove or displace without permission of the health officer or his agent any sealing tape after the said tape has been placed by an officer or agent of the board of health shall be guilty of a violation of this rule and be subject to the penalty hereinafter provided.

SEC. 49. Whenever in the city of Johnstown any persons shall be found to be suffering from a contagious or infectious disease who shall be so located and housed as in the opinion of the board of health to constitute a menace to the health of the public, the board of health shall have power to take and remove such person from the premises whereon said person is located to the municipal hospital. Any person or persons who shall resist or interfere with the said board of health or its health officer or other representative or representatives in the performance of their duty as aforesaid shall upon conviction thereof before the mayor or any alderman of this city be subject to a fine and costs as prescribed hereinafter.

SEC. 50. Any midwife, or nurse, or other person having the care of an infant whose eyes have become inflamed or swollen or reddened at any time within two weeks after birth shall report the same in writing to the health authorities of the city of Johnstown within six hours after the discovery thereof; giving the name of the infant, the names of the parents or guardians, and the street and number of their residence, or otherwise sufficiently designate the same, together with the fact that such inflammation or swelling or redness exists, and shall make a similar report in writing to some regularly qualified practicing physician of the district.

SEC. 51. That it shall be the duty of the said health authorities immediately upon receipt of a written report from a midwife or a nurse, or person other than a practicing physician, to notify the parents or guardian, or other person having charge of the infant of the danger to the eye or eyes of said infant by reason of any neglect of proper treatment of the same.

SEC. 52. That in the case of the prevalence or of reasonable ground to apprehend the prevalence of contagious or infectious disease in the city, the board shall direct specially the cleansing of houses, cellars, yards, or such other places as they may consider requisite or prudent for the preservation of the health of the city or for the mitigation of the disease, and shall establish hospitals, one or more, as they deem circumstances to require, and make provisions and regulations for such hospitals.

SEC. 53. No person shall falsely or maliciously circulate or publish any rumor or rumors of contagious, infectious, or malignant disease.

SEC. 54. It shall be the duty of the occupant of every house within the limits of the city, in the month of May in each and every year, to cleanse the cellars thereof of all dirt, vegetable, and other impure matter calculated to engender disease, and to cause them to be thoroughly whitewashed with fresh lime.

SEC. 55. When the people of the city are exposed to smallpox, it shall be the duty of every adult and every parent, guardian, or master of every minor residing within the limits of this city who has not had smallpox or been successfully vaccinated, to be vaccinated and to cause such minor or minors under their charge to be vaccinated, unless unable to do so by reason of poverty, in which case vaccination will be done free of charge by the city physician upon request.

It shall be the duty of the health authorities to quarantine all persons who have come in contact with smallpox, for a period of 18 days, who refuse to be vaccinated and have their clothing fumigated.

SEC. 56. All principals or other persons in charge of schools, as aforesaid, are hereby required to refuse admission of any child to the schools under their charge or supervision, except upon a certificate signed by a physician setting forth that such child has been successfully vaccinated, or that it has previously had smallpox: *Provided*, That a person who has had the operation for vaccination faithfully performed three times, at intervals of two successive weeks without success, is for the time immune from smallpox; and further, that persons who have a written certificate from a reputable physician that two such attempts to vaccinate were faithfully performed and a second from a physician of the board of health may be admitted to school for one year without violating the spirit of the law, the object of which is simply to prevent the spread of smallpox.

SEC. 57. No person shall knowingly sign a false certificate of vaccination or of immunity nor use the same.